



# CLIMATE CHANGE RESILIENT DEVELOPMENT

## QUARTERLY IMPLEMENTATION REPORT

JANUARY 2013 – MARCH 2013

**April 19, 2013**

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April 19, 2013

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# ACRONYMS

AAC	American Alpine Club
ACT	Affected Citizens of the Teesta
AGU	American Geophysical Union
ALM	Adaptation Learning Mechanism (website)
AMEs	Associations des Mères-Elèves
ANA	Water National Authority
AP	Adaptation Partnership
APEs	Associations des Parents-Elèves
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza
CCAFS	CGIAR Research Program on Climate Change, Agriculture and Food Security
CCRD	Climate Change Resilient Development Task Order
CDKN	Climate Development Knowledge Network
CEQ	Council on Environmental Quality
CERFACS	Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique
CGIAR	Consultative Group on International Agricultural Research
CIAT	International Center for tropical Agriculture
CIMPACT-DST™	Climate Impacts Decision Support Tool
COMESA	Common Market for Eastern and Southern Africa
CONCYTEC	Peru's National Council on Science, Technology and Technological Innovation
CoP	Community of Practice
CRISP	Climate resilient infrastructure services program
CRW	Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security”
CSP	Climate Services Partnership
DCHA	Bureau for Democracy, Conflict and Humanitarian Assistance
DDC	District Development Committee
DL	Data Library
E.O.	Executive Order
E3	Bureau for Economic Growth, Education and the Environment

ECOSS	Ecotourism Society of Sikkim
EGAT	Bureau for Economic Growth, Agriculture and Trade (USAID)
EGU	European Geosciences Union
ELI	Environmental Law Institute
ESIP	Earth System Information Partnership)
ETH	Eidgenössische Technische Hochschule Zurich
EVI	Enhanced vegetation index data
FCMC	Forest Carbon, Markets, and Communities Task Order
FGD	Focus group discussions
FTI	Fast Track Implementation
FY	Fiscal Year
GCC	Global Climate Change
GFCs	Global Framework for Climate Services
GIS	geographic information system
GLOF	Glacial Lake Outburst Flood
GLRR	Glacial Lake Rapid Reconnaissance
GM	Grants Manager
GPR	Ground penetrating radar studies
GPS	global positioning system
GUC	Grants Under Contract
HMGWP	High Mountain Glacial Watershed Program
HQ	Headquarters
ICC	Institute for Climate Change Research
ICCS2	(Second) International Conference on Climate Services
ICF	ICF Incorporated, LLC
ICIMOD	International Centre for Integrated Mountain Development
ICLEI	International Council for Local Environmental Initiatives
ICT	Information and Communication Technology
ICTA	Institute for Agricultural Science and Technology
IQC	Indefinite Quantities Contract
IQC	Indefinite Quantities Contract



IRG/Engility	International Resources Group/Engility
IRI	International Research Institute for Climate and Society
ISC	Institute for Sustainable Communities
ISSET	Institute for Social and Environmental Transition
ISS	Institute for Security Studies
IUCN	International Union for Conservation of Nature
KACC	Khumbu Alpine Conservation Council
KM	Knowledge management
LAPA	Local Adaptation Plan of Action
LDO	Local Development Officer
LPA	Legislative and Public Affairs
M&E	Monitoring and evaluation
MAPs	Medicinal and aromatic plant
NAP	National Adaptation Plan
NEPAD	The New Partnership for Africa's Development
NGO	Non-governmental organization
NGS	National Geographic Society
NOAA	National Oceanic and Atmospheric Administration
PMP	Performance Management Plan
PNH	Huascaran National Park
QC	quality control
RFA	Request for Applications
SAC	Senior Advisory Committee
SERNANP	National Service for Protected Natural Areas
SICTA	Central American Agricultural Technology Integration System
SIWW	Singapore International Water Week
SOI	Statements of Interest
SOW	scope of work
SS	South-South
SUNY	State University of New York
TMA	Tanzania Meteorology Agency

TMI	The Mountain Institute
UC	University of Colorado
UCCRN	Urban Climate Change Research Network
UNASAM	Universidad Nacional “Santiago Antúnez de Mayolo”
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UPCH	Universidad Peruana Cayetano Heredia
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	U.S. Government
UT	University of Texas at Austin
V&A	Vulnerability and Adaptation
VDCs	Village Development Committees
WASH	Water, sanitation and hygiene
Water II IQC	Integrated Water and Coastal Resources Management Indefinite Quantities Contract
WB	World Bank
WFP	World Food Program
WG	Working Group
WMO	World Meteorological Organization
WVI	World Vision International

# A. INTRODUCTION

This report summarizes the activities undertaken by the consortium led by International Resources Group (IRG/Engility) during the quarterly reporting period of January 2013 – March 2013 under the Integrated Water and Coastal Resources Management Indefinite Quantities Contract (Water II IQC) Climate Change Resilient Development (CCRD) Task Order. The report covers project management and implementation activities undertaken and/or completed during the reporting period. The CCRD quarterly Performance Management Plan (PMP) report, current CCRD organizational chart, and quarterly financial report are provided as Annexes. The remaining sections are divided into four sections: 1) Project Management; 2) Objective 1 activities; 3) Objective 2 activities; and 4) Objective 3 activities.

The report includes updates on activities and tasks described in the CCRD Year Two Work Plan:

## ***Project Management, Planning, and Evaluation:***

Task PM-1 Develop Year Two Work Plan

Task PM-2 Update and Implement Performance Management Plan (PMP)

Task PM-4 Conduct Advisory Committee Meetings

Task PM-6 Develop & Disseminate CCRD Knowledge Management (KM) Products

Task PM-7 Implement Grants Under Contract Program

## ***Objective 1: Support for USAID Missions and Bureaus***

Task 1.1.1 Revise Vulnerability and Adaptation (V&A) Manual

Task 1.1.2 Develop Climate Briefs and Annexes

Task 1.1.3 Develop Lessons Learned on Mainstreaming Climate Adaptation

Task 1.1.4 Prepare Case Studies to Demonstrate the Mainstreaming Guidance

Task 1.1.5 New Directions in Pilots and Research

Task 1.2.1 Understand USAID Bureau and Mission Needs for Climate Change Adaptation Tools

Task 1.2.3 Support the United Nations Development Programme (UNDP) Adaptation Learning Mechanism (ALM) Website

Task 1.3.1 Provide Capacity Building Support on Mainstreaming V&A

Task 1.3.3 Support Development of USAID's Federal Agency Climate Change Adaptation Plan

Task 1.3.4 Provide Support for USAID Integration Pilot in Kazakhstan

Task 1.4.1 Design a Health Program for Inclusion in the Climate Services Program

## ***Objective 2: Coordinate with Other U.S. Government (USG) Agencies to Support Mainstreaming***

Task 2.1.1 Conduct Adaptation Partnership Workshops

Task 2.2.1 Facilitate Adaptation Partnership Communities of Practice (CoPs)

Task 2.2.2 Develop Adaptation Partnership Materials

## ***Objective 3: Identify and Respond to Emerging Issues and Fill Gaps***

Task 3.1.1 Support Preparation of National Adaptation Plans (NAPs)

Task 3.1.2 Develop and Pilot Fast Track Implementation (FTI) Concept

Task 3.2.2 Develop the HMGWP's CoPs

Task 3.2.3 Design and Conduct the Climber-Scientist Competitive Solicitation

Task 3.2.4 Implement CoP Pilot Projects and Research

Task 3.3.2 Coordinate Activities of the Climate Services Partnership

Task 3.3.3 Compile and Disseminate Current Climate Services Knowledge

Task 3.3.4 Conduct Case Studies and Assessments of Climate Services

Task 3.3.5 Economic Valuation of Climate Services

Task 3.3.6 Climate Information Guide

Task 3.3.7 National/Regional-level Climate Services Development

Task 3.3.8 Develop Climate Services Products for the Agricultural Sector

Task 3.3.9 Climate Services Technical Backstopping of Development Programs

Task 3.4.1 Identification of Pilot Cities

Task 3.4.2 CRIS Support To Pilot Cities To Accelerate Climate Risk Management

Task 3.4.3: Fast Track Implementation Small Grants Program

Task 3.4.4 Global City-to-City Information Exchange

A documents CD is provided with this report and contains all reports and presentations drafted and/or finalized during the Second Quarter of FY 2013. In addition, performance indicators and achievements for the reporting period are provided in Annex I, an organizational chart is provided in Annex II, and a quarterly financial report is provided in Annex III.

## B. PROJECT MANAGEMENT, PLANNING, AND EVALUATION

Project management activities during the second quarter of Fiscal Year (FY) 2013 focused on finalizing the Year Two Work Plan, holding the quarterly winter Senior Advisory Committee (SAC) meeting and planning for the upcoming spring meeting, continued development of web pages and sites related to CCRD and the Adaptation Partnership and Communities of Practice (CoP), issuing and monitoring small grants awards, and recruiting a full-time project-dedicated Climate Change Adaptation and Development Specialist.

### **Task PM-1 Develop Year Two Work Plan**

During the second quarter, CCRD staff revised the existing draft Year Two Work Plan, based on comments from USAID and partners, and submitted a revised draft. The Year Two Work Plan covers the period of August 2012 – July 2013. Approval was received from USAID in January and a final copy of the Work Plan was given to all partners during the winter SAC meeting.

### **Task PM-2 Update and Implement Performance Management Plan (PMP)**

During the second quarter, CCRD worked with USAID to revise the PMP to reflect targets that had been set by USAID for Year One. CCRD also assisted USAID with proposing new targets for Year Two.

### **Task PM-4 Conduct Advisory Committee Meetings**

The winter Senior Advisory Committee Meetings were held at IRG/Engility on January 24-25, 2013. The winter SAC covered fewer topics in greater depth allowing for robust discussion on opportunities to build on previous work, encourage collaboration across CCRD, and combine program elements. A critical element of the SAC was the theme of integration among partners on upcoming CCRD activities. The first day was devoted to programmatic updates, next steps on CCRD guidance, and an afternoon discussion on Fast-Track Implementation. The second day focused mostly on the urban program including an overview of the Climate Resilient Infrastructure Services (CRIS) activity, Cascadia's decision support tool, and a white paper briefing on planning for post-disaster redevelopment. During both days, committee members discussed the new CCRD programs in depth and the potential for all partners to work together on implementation.

As a follow-up to the discussions on mainstreaming at the winter SAC, CCRD staff also began to prepare for a follow-up three-day meeting in Boulder, Colorado (hosted by Stratus Consulting), scheduled for April 24-26, 2013. The meeting will serve as a pilot training for CCRD staff on the mainstreaming framework, guidance in providing technical assistance on the mainstreaming, and include a session on conducting field technical reviews of CCRD small grants. This initial training will begin the process of training trainers within the CCRD consortium and collect input from SAC members on the training's effectiveness before rolling out to the wider CCRD team this summer. The meeting may also serve as an initial launching point for Year 3 work planning. This early initiation is designed to reduce delays in finalizing new task orders for partners in Year Three.

### **Task PM-6 Develop and Disseminate CCRD Knowledge Management (KM) Products**

During the second quarter, CCRD has put great effort into improving the layout and functionality of the High Mountain Glacial Watershed Program (HMGWP) and Climate Services Partnership (CSP) CoP websites. A redesign of the HMGWP site has been completed and is currently being developed and

tested before being rolled-out the week of April 22<sup>nd</sup>. The new site will more clearly highlight the activities undertaken and information gathered through the HMGWP. The CSP site redesign is also well underway. Emphasis on the site will be placed on the mapping feature, which will include various filters to give a quick and descriptive visual overview of partner activities around the world. Both of these CoPs will also make greater use of webinar and online discussion features to engage their CoP members. During this quarter, The Mountain Institute (TMI) began working on the first HMGWP webinar including videos, presentations, and real-time discussion forums through Adobe Connect. The webinar is set to take place the first week of May.

Work continued on the CCRD project website. USAID had decided that our team should move forward with designing and implementing a new project website to serve the purpose of a place for information sharing while the USAID website is still developing its full functionalities. A concept note to define the site's objectives and primary functions is with USAID for their comment and approval before we begin to develop the wireframes for the site. During this quarter, a draft LPA (Legislative and Public Affairs) request was submitted to USAID, to be submitted by the GCC Office to LPA for approval. CCRD is waiting for USAID to submit this request and the website is on hold in the interim.

### **Task PM-7 Implement Grants Under Contract Program**

CCRD Climate-Scientist Small grants and Central America Grants are ongoing and the grantees continued to report to CCRD Grants Manager and Technical Officers.

#### **Climber-Scientist Small Grants**

**Adam French (University of California, Santa Cruz):** In early 2013, Adam's Climber-Scientist program activities have consisted of communicating remotely with his Peruvian project participants and collecting information related to the ongoing collaborative management of Lake Paron. Specifically, he has been monitoring recent efforts to conduct comprehensive evaluation and maintenance of the lake's discharge infrastructure. This evaluation and maintenance has not been undertaken in more than a decade and is important to ensuring the infrastructure's functionality. Unfortunately, despite significant advances, the evaluation and maintenance was not carried out due to difficulties in successfully contracting professionals capable of performing the maintenance in concert with local stakeholders. This complicated situation has rekindled tensions around the management of Lake Paron and highlights the pressing need for transparent and cooperative management strategies founded on a shared understanding of risk and potential responses to it. Adam's Climber-Scientist activities are targeted at contributing to the development of this shared understanding of risk and to the collaborative management of Lake Paron in general.

Additionally, in recent months Adam has been in contact with Peruvian engineer Cesar Portocarrero and fellow Climber-Scientist grantee Laura Read about opportunities to collaborate on efforts to conduct participatory data collection and capacity building with residents of the communities directly downstream of Lake Paron. He will continue to conduct independent and collaborative Climber Scientist project activities remotely through May 2013, and in June and July 2013, Adam will undertake field-based activities in Peru.

**Ms. Ulyana Nadia Horodyskyj (University of Colorado (UC) at Boulder):** For the time period of January – March 2013, Ulyana has been analyzing and interpreting data collected from a November 2012 field expedition to a large terminal supraglacial lake growing on the Ngozumpa glacier, Nepal. This includes creation of a new bathymetry (depth) map of the lake, to compare with 2010 results, as well as temperature profiling of different basins, to begin some hydrodynamic modeling.

A workshop on glaciology field techniques will be given at Kathmandu University, Nepal, in early May 2013, in collaboration with Dr. Rijan Bhakta Kayastha and his Master's/PhD glaciology students. During the May 2013 field season back at the Ngozumpa glacier, Ulyana will be joined by a field

assistant, Sam Ecenia, from UC Boulder, as well as a beginning Master's student, Ms. Sonam Futi Sherpa, from Kathmandu University, Nepal.

**Stephanie Spray (Harvard University):** During the period, Stephanie was in an intensive period of pre-production planning and research for the film *Snow River*. She solidified the production schedule for the film in Nepal, consulted with colleagues at Harvard, and did her own research on some of the best equipment available to videographers today and became familiar with their use. She also met with many well-known contemporary filmmakers and artists and sought their help in developing the project; she watched numerous films on the environment and labor practices at high altitude shot around the world; she shared her film concept and some sound work made from previous trips to the Himalaya with a conference at Harvard called "Mining the Imagination"; and she began writing a treatment outlining the structure of the film. All of this work has been very fruitful and will allow her to hit the ground running when she arrives in Nepal next week.

**Laura Read (Tufts University):** Research activities for the Tres Cuencas Commonwealth grant have progressed on the following three topics: (1) assessments of water quality and small-scale drinking water projects in communities within the Tres Cuencas Commonwealth; (2) feasibility investigation on mobile phone data collection, and (3) water management and capacity building in Lake Paron.

In the months between January and March, two communities in the Commonwealth (Canrey Chico and Mayorarca) were assessed for potable water quality and possible design of a potable water system. Bacterial, metals, and physical parameter samples were collected and tested in the field and in the local University lab. A proposal for a potable water system will be written for these two communities to receive funding through the regional government and the Commonwealth to design an improved potable water system.

Three pilot communities for testing a mobile phone data collection system have been identified. The first pilot is in Lake Paron to measure water and climate data in the rural parts of the watershed. The second pilot is in the Quillcay river basin to measure indicator species of water quality using smart phones and picture messaging and is in partnership with USAID, The Mountain Institute, and the Ministry of the Environment. The third project is in Huasta and will monitor soil moisture and flow conditions in conjunction with a project through Engineers Without Borders. These systems will be tested from June to August following capacity building and informational workshops.

In March, the first of three workshops began in the Campesina Communities within the Lake Paron watershed. This series of workshops focuses on assessing water and glacial risks in the watershed and how to take local action to mitigate these risks. The outcome of these workshops is an action plan for addressing risks in the watershed, specifically related to water quantity and quality, and a part of this plan will include data collection via cellular phones.

**Raúl Augusto Loayza Muro (Universidad Peruana Cayetano Heredia):** During this period two main activities have been developed: informative workshops and field work.

**Workshops:** Two workshops were organized by the Universidad Peruana Cayetano Heredia (UPCH) and The Mountain Institute during January and February. Areas of coordination included: (1) the elaboration of an activity program and an informative folder regarding the current knowledge on climate change and water quality in the Cordillera Blanca, which was distributed among the participants; (2) logistics: reservation of a conference room at Hotel La Joya in Huaraz, and local schools in the rural area; and (3) printing and distribution of invitations.

One workshop was held in the city of Huaraz on March 1 and the other one in the rural community of Qoyllur in the Quilcayhuanca subcatchment on March 2. The objectives of the project were presented at these workshops (through printed material and oral presentations) to the rural communities, inviting

them to participate in its activities, and to share information, experiences, and perceptions about the conservation of high altitude water sources and the potential impacts of climate change. These activities were also attended by researchers of the local university (Universidad Nacional “Santiago Antúnez de Mayolo” – UNASAM) and stakeholders from the Water National Authority – ANA, National Service for Protected Natural Areas – SERNANP, and Huascarán National Park – PNH working in water management and climate change adaptation programs.

**Fieldwork:** Raúl has evaluated physical and chemical parameters of water (pH, conductivity, temperature and dissolved oxygen, metal concentrations) in reference and polluted lagoons and streams, and ultraviolet radiation along an altitude gradient, between 3,200 and 4,500 m above sea level in the Quilcayhuanca subcatchment in the Cordillera Blanca. Simultaneously, he has sampled benthic macroinvertebrates at the same sites to evaluate the impacts of pollution on aquatic biodiversity and determine their suitability as indicators of water quality in high altitude lagoons and streams. Finally, he and his team sampled two different aquatic plant species at polluted streams to analyze metals and determine if they are potential candidates for remediation of water pollution in Andean environments.

**ATREE (India-Nepal):** In this reporting period, ATREE-USA completed: (1) household surveys and individual interviews in Daragaon, Daragaon Khamsal, and Gurdum villages in February 2013; (2) household interviews in Lachung valley villages; (3) focus group discussions (FGD) in Daragaon and Gurdum: two rounds of FGD with village elderly in Daragaon and Gurdum respectively; (4) compilation of information related to climate change and extreme weather events in the region; and (5) interviews and meetings with key identified informants, including:

- Sudeep Bomzon (Anugulaya). Anugulaya is working on disaster preparedness in the region
- Arindham Biswas, Officer-in-Charge, disaster management, Darjeeling District Administration
- Dhiren Shrestha – Additional Secretary – Sikkim Department of Science and Technology
- Tenzing Lepcha – Affected Citizens of the Teesta (ACT), an NGO actively protesting dams in Sikkim
- R.P. Gurung- Ecotourism Society of Sikkim (ECOSS)

ATREE also presented the project at the international conference on The Eastern Himalaya: Climate Change, Livelihoods and Poverty, March 7-8, 2013, organized by the Centre for North East Studies and Policy Research, Jamia Millia Islamia, Delhi.

**The Research Foundation for the State University of New York (SUNY) (Mongolia-Altai):** This project was initiated January 1, 2013. During the project's first quarter, SUNY made significant progress in three areas. The first is assembling a time series of remote sensing data for western Mongolia that will serve as the foundation for the project. To this end, the SUNY team has downloaded and assembled NASA MODIS enhanced vegetation index data (EVI) as well as land surface temperature. SUNY is in the process of acquiring analogous precipitation data. To visualize the temporal dynamics of these data (captured every 16 days over the last 10 years) please see: <http://youtu.be/a8E1U6u1a10> (Atlai\_EVI) and <http://youtu.be/v7Xw6XCAHXY> (Atlai\_LST). SUNY is now in the process of determining the most appropriate statistical method to apply to this massive dataset to detect trend and spatial and temporal anomalies while controlling for the strong seasonality in the datasets. SUNY will next use these maps and analyses to identify a series of field verification sites to visit this summer in collaboration with local herders who will help SUNY measure actual vegetation conditions at these sites under estimates of high, medium, and low EVI. SUNY will also secure collaboration of herders to help interpret temporal and spatial anomalies and their causes (thereby leveraging local knowledge). Once SUNY has a full understanding of the relationships between temperature, precipitation, and the



vegetation index, they will link these to predictions of future temperature and precipitation from global change models to predict likely future range conditions.

The second accomplishment is that SUNY has assembled 10 years of wildlife data (for ibex, argali, and snow leopards) in a geographic information system (GIS) along with environmental layers (elevation, slope, aspect, rivers, roads, etc.) and has begun the process of species distribution modeling. This will not only enable them to understand contemporary relationships among environmental conditions and wildlife but will serve as a method to predict likely future distributions under different conditions of climate change.

A third accomplishment is a nearly full elaboration of a guidance document for establishing wildlife observation-based ecotourism enterprises in western Mongolia. This 50-page document is undergoing internal review and outlines in detail all aspects of successfully operating wildlife observation-based ecotourism enterprises.

In sum, SUNY has made very significant progress toward project objectives and has positioned itself to (1) focus on field verification of rangeland conditions during the summer season and (2) do a final synthesis of all accumulated data during the fall season. SUNY is currently busy planning the field season for June-July 2013 and making the necessary contacts and arrangements.

**Shah Raees Khan (University of Manitoba):** Activities and site visits have been postponed for this grant due to the current situation in Pakistan, including both political and religious clashes. He is looking into the options of conducting the surveys through some qualified people who have experience of conducting field surveys in my supervision. If permission is obtained, he will take this route to get the data rather putting himself in a situation of uncertainty.

**Geo-Science Innovations (Nepal):** To investigate the socio-economic status in flood-affected areas of the Seti River basin in Pokhara, the grantee carried its field survey downstream of the Seti River basin from the end of December 2012 to the first week of January 2013. The results can be summarized as follows:

The flood is thought to have drowned foreign tourists, picnickers, laborers, and local residents of Kharapani village. It killed 32 persons; another 30 went missing and many more families were displaced. The flood has killed livestock, wiped out local livelihoods, destroyed temples, roads, community buildings, and vital infrastructure such as suspension bridges, electric poles, and drinking water transmission pipes. Most of the river bank dwellers are migrants and have a low propensity for purchasing safety lands for settlements in urban area. Since the main occupation of majority of population was labor, their rent paying capacity would be lower. Therefore, they settled along the marginal public lands without paying attention to the risk of flooding. More than 90 percent of the households had prior knowledge about probable risk in the settlement. They had seen turbid river water without heavy rain. However, they were busy in eking out their livelihoods and did not pay attention to the flood risk and stayed at their own dwellings.

Similarly, flood inundation mapping of the Seti River was also conducted in this period. The river mapping focuses on producing a flood inundation map, overlaying the map prepared from the survey data so that the scenario of the Seti River and its periphery can be visualized. Ultimately, the hazardous and vulnerable zones along the river are depicted and precautions and remedies against future flooding and flash floods can be devised. Sukumbasi Basti at Masina Bagar and Laltin Bazzar are prone sites that can be affected by flood. There are more than 50 houses clustered together at Masina Bagar and about 15 houses on the banks in danger of being swept away by floods. These residents can be swept away at any time; therefore, there is an urgent need to develop and implement suitable tools and procedures for forecasting and real time warning of flash floods.

Lab analysis by experts is underway at Arizona University and the Geology Department of Tribhuvan University. Further collaboration is being developed with International Centre for Integrated Mountain Development (ICIMOD) and a key visiting collaborator at ICIMOD and SERVIR Applied Sciences program. It will conduct a follow-on visit to the site for complete mapping of the gorge geometry and other field studies.

**Resources Himalaya Foundation (Nepal):** The grantee conducted following activities in January 2013:

### **1. Training Workshop on Local Adaptation Plan of Action (LAPA)**

For the preparation of effective LAPA at the project site, two-day (December 9, 2012 and January 3, 2013) training workshop was conducted by Dr. Deepak Rijal. He is one of the grantee team members who prepared the “National Framework on Local Adaptation Plans for Action” of the Ministry of Environment, Climate Change Division. Altogether, 17 participants, including project team members, research grantees, and university graduates, attended the training.

### **2. Reconnaissance Visit**

The Grantee pursued a reconnaissance visit at Ramechhap district headquarters on January 10-12, 2013. The objectives of visit were to: (1) conduct the meeting with Local Development Officer (LDO), Government officers of concerned line agencies, and local stakeholders of Ramechhap district, (2) organize a Consultation Meeting for selecting the four most vulnerable Village Development Committees (VDCs) for project implementation, (3) form a local support committee in the district, and (4) meet the Secretaries of concerned VDCs to conduct sensitization program at the local level.

During the reconnaissance visit a familiarization and district consulting meeting was organized jointly by Resources Himalaya Foundation and District Development Committee (DDC), Ramechhap at Manthali, district headquarters on January 11, 2013. Participants included DDC Officers, representatives from different government offices, civil society, political parties, and non-governmental organizations (NGOs) (Annex I). The meeting decided on four VDCs with the highest vulnerability score, namely: Manthali, Pakarbas, Khaniyapani, and Himganga for project implementation. Later, since Pakarbas had already prepared an LAPA, Chisapani VDC was selected to replace it.

### **3. Formation of District Support Committee**

To support grant activities, District Support Committee with 11 members representing the following organizations was formed. The committee is chaired by the DDC Local Development Officer Mr. Narayan Mainali and composed of representatives of District Forest Office, District Education Office, District Agriculture Office, District Livestock Service Office, District Disaster and Watershed Management Office, Nepal Federation of Journalists, Federation of Community Forests, Non-Governmental Organization Federation of Nepal, and the District Woman Development Office. Mr. Deepak Subedi, Program Officer, DDC, Ramechhap has been nominated as Member Secretary of the Committee.

### **4. Meeting with VDC Secretaries and Social Mobilizers**

As VDC secretaries and social mobilizers are an essential part of project implementation at local level, a meeting was conducted with concerned VDC secretaries and social mobilizers of the selected VDCs. They were informed about the project activities and their roles in further stages of the project were discussed.

### **5. Steering Committee Meeting**

The Steering Committee meeting was held on January 27, 2013 under the chairmanship of Mr. Resmi Raj Pandey, Joint Secretary of Ministry of Federal Affair and Local Development, Nepal. Team leader Dr. Dinesh Raj Bhuju presented inception and monthly reports of the project and also informed the steering committee members about the reconnaissance visit as well as giving project updates. Mr. Lava Bahadur KC from the Ministry of Science, Technology, and Environment advised adding this project to the Documentation List of the Government of Nepal. The other members who presented at the meeting were Mr. Dhan Bahadur Shrestha and Ms. Anita Shrestha.

**Institute of Environmental Engineering** (Eidgenössische Technische Hochschule ETH), **Zurich, Switzerland:** The grant project is progressing as planned. Following the signature of the Grant Agreement in December 2012, the new and final starting date of the project was agreed to be January 2013. A new project work plan was agreed prior to the signature to accommodate the delay and adjust project activities and deliverables, and the timing of the field campaigns in particular.

During this reporting period, ETH conducted a study to understand how to best use soft knowledge in “hard” science – e.g. four students from Kathmandu University have been selected in coordination with ICIMOD to join the May field campaign. All four students are enrolled in the Master’s Program in Glaciology at Kathmandu University. They will assist in training the members of the local communities and support the ETH team through translation as well as providing professional support during the training lectures and in the field by supervising the groups during measurements. For the students this is a great opportunity to learn and further develop their skills. Some of them will be co-supervised by Dr. Francesca Pellicciotti and Dr. Walter Immerzeel for their Master’s thesis.

The ETH team has held several meetings to discuss the content and layout of the information material to be prepared to support the capacity building for the members of the local communities and the subsequent measurement campaign conducted by them..

The planning of the first field campaign is proceeding. The dates are decided and flights have been purchased for all team members. The field campaign will take place from 30th of April to 27th of May 2013. All team members arrive in Kathmandu a few days before in order to participate in organizational meetings among team members and with ICIMOD and KU students, as well as inspect the material which will be shipped to Nepal in advance, test it when necessary and repack it appropriately for transportation. Dr. Francesca Pellicciotti and Lene Petersen are in constant contact with Tek Rai for all details concerning the field campaign.

Some of the project equipment was purchased such as parts of the recharge system for the local communities and the temperature sensors to be installed in the valley.

ETH team members had several meetings to discuss the content and structure of the training in the field and the design of the training material, which needs to be suited to the needs of people who cannot read or write, or can only do so rudimentally. Lene Petersen, together with Martin Heynen, is preparing the materials, which includes:

- Visual overview of all measurements
- Lecture on how to maintain the temperature loggers and how to download the data and re-launch the sensor
- Lecture on how to take water depth measurements
- Lecture on how to take snow depth measurements
- Lecture on cloud and wind observations
- Lecture on how to measure locations with the global positioning system (GPS)

- Measurement protocols for all measurements

Special attention is given to produce training materials that are as user-friendly as possible for those who cannot read or write. A number of visual supports have been designed that will accompany the lectures in the field and will be included in the manual.

#### **Central America Small Grants:**

**Zamorano:** A selection of sites was made based on selection criteria and rural rapid appraisals to identify the sites with the most potential for impact. Baseline information has been gathered and beneficiaries characterized. Selected sites are: Jacaleapa and Santa Inés in Honduras, Ozatlán, Usulután in El Salvador, and Totogalpa, Madriz in Nicaragua.

Meetings with farmer groups have taken place in all three countries and coordination with partner organizations is taking place (INFOP in Honduras, INPRUH in Nicaragua, and World Vision in El Salvador). The project has been presented to community members and local NGOs and collaborative relationships are being strengthened and built.

Significant advances have been made in Zamorano as a new “learning-by-doing” training module on climate and agriculture is incorporated in the curricula and is taught in the field. During this quarter, 17 students have received this five-week training module. Participating students come from different countries in Latin America: Honduras (5), Nicaragua (3), Guatemala (3), Ecuador (3), Belize (1), El Salvador (1), and Panama (1). Students are testing technologies such as drip irrigation, several soil conservation practices, integrated pest management practices, and tools for farm assessments and planning.

Farmer field schools will be carried out in the upcoming quarter and a training event is being held in Zamorano with the participation of 26 extension agents, faculty of agronomy academic programs, and farmer representatives from all three countries.

**Private Institute for Climate Change Research (ICC):** The Advisory Committee members were selected, representing ICTA (La Máquina office); CONSUROC; FASUSAC; DISAGRO (a corporation which provides in-kind “loans” such as pesticides and fertilizers to farmers); the Ministry of Environment and Natural Resources; the Ministry of Agriculture, Livestock and Food (Department of Suchitepéquez office); USDA-UVG (a Food Aid Program administered by the United States Department of Agriculture (USDA) Foreign Agricultural Service with the Guatemalan Del Valle University); the Institute for Agricultural Science and Technology (ICTA) (represented by the department that has expertise in beans); the World Food Program (WFP); and the Central American Agricultural Technology Integration System (SICTA). The Advisory Committee met for the first time in November 2012 and provided suggestions for workshops and other project activities.

Two workshops were planned for late January 2013, one targeted at experts on staple crops, and the other targeted at farmers.

The materials for the certificate programs (*Diplomados*) are being developed, and adjusted to be relevant to the climate, language, and other local conditions in each site. The courses will begin by March 2013. Participants have been selected; there are 45 participants per group (90 per location), a higher number than originally envisioned to account for potential drop-out rates. The participants include:

- Nahualá: 39 women and 51 men
- Parramos, Chimaltenango: 54 women and 36 men
- La Nueva Concepción: 42 women and 51 men
- La Máquina: 52 women and 38 men

**CATIE:** CATIE (Centro Agronómico Tropical de Investigación y Enseñanza) began studying the climatic and soil suitability of seven plant species that are important for livestock farming. They did a literature review on the ecological requirements of different species, and looked at the current known distribution of those species in Central America. That information is being used together with downscaled A2 emission scenarios<sup>1</sup> from the International Center for tropical Agriculture (CIAT) and a harmonized soil database to project future suitability of sites for the selected species. They have completed preliminary projections for two species, *Cordia alliodora* and *Guaesumum umifolia*, finding an initial increase in suitable areas (until 2040-2050), followed by a substantial decrease in suitability by 2100 for *Guaesumum umifolia* and a differentiated suitability change for *Cordia alliodora* (greater suitability in Nicaragua, and less in other Central American countries). The data are undergoing additional analysis, including with the less extreme B1 emission scenarios<sup>2</sup>.

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<sup>1</sup> The A2 family of emission scenarios is characterized by a world of independently operating, self-reliant nations, continuously increasing population and regionally oriented economic development.

<sup>2</sup> The B1 family of emission scenarios is characterized by rapid economic growth oriented to services and an information economy, population increasing to 9 billion by 2050 then declining, reduction in material intensity, introduction of clean and resource efficient technologies, and emphasis on global solutions to economic, social, and environmental stability.

# C. OBJECTIVE I: SUPPORT FOR USAID MISSIONS AND BUREAUS

Objective I of CCRD is to provide support for USAID Missions and Bureaus. During the second quarter of FY 2013, CCRD began finalizing the climate mainstreaming guidance and supporting Annexes, conducted discussions with USAID on decision and tool typologies, finished the Infrastructure Fact Sheets and Synthesis Paper, and completed the Water, Sanitation, and Hygiene (WASH) case study in Iloilo in the Philippines

## ACTIVITY I.1 GUIDANCE, PILOTS, AND RESEARCH

### Task I.1.1 Revise Vulnerability and Adaptation (V&A) Manual

During the second quarter, CCRD received final comments from USAID on the guidance on vulnerability and adaptation, and is currently making final tweaks, including refining the graphics. The CCRD Team awaits approval from USAID to move into the production process. CCRD partner ICF International (ICF) distributed an updated draft of the technical Annex on climate vulnerability assessment for review in the last quarter, and is currently revising the Annex.

### Task I.1.2 Develop Climate Briefs and Annexes

CCRD staff made progress during the quarter on four Annexes, and finalized a series of Infrastructure Fact Sheets. Emphasis was given to ensuring that Annexes complement the mainstreaming guidance. A draft final version of the Water Annex was formatted for external review and the remaining three Annexes are at various advanced stages of development.

#### Water Annex

During this quarter, Jason Vogel of Stratus Consulting (Stratus) revised the Water Annex to accommodate additional reviewer comments and to align the Annex with the Climate-Resilient Development guidance. Mr. Vogel developed a spreadsheet of all reviewer comments to track the review, developed an executive summary, and finished revising the Annex.

#### Coastal and Marine Annex

CCRD partner Stratus is revising the Coastal Annex to be more consistent with the main guidance and the Water Annex as well as to reflect comments from USAID and other external reviewers. The next draft will be distributed for review by the Global Climate Change (GCC) Office next quarter.

#### Identifying and Reducing Vulnerability to Climate Change for Disadvantaged Populations Annex

The outline for the Annex was revised following an internal review of the first draft of the Annex. The revised outline is currently under review and a revision to the draft will be completed during the second quarter.

#### Governance Annex

During this quarter, Jessica Troell and Bruce Myers (Environmental Law Institute or ELI) began finalizing the second draft of the Governance Annex to the V&A Manual, titled “Governing for

Resilience: A Guide to Climate-Adaptive Development Decisions. The draft will be under review by IRG/Engility and USAID during the third quarter and will be completed by June 2013.

### **Infrastructure Fact Sheets and Synthesis Paper**

The CCRD team compiled and formatted a set of nine infrastructure fact sheets and an overview into a booklet form, and 50 copies were printed. Upon further review of the booklets, a second round of quality assurance and editing was conducted, and 25 more fact sheet booklets were printed. These booklets will be distributed to CCRD partners, stakeholders, and other groups for collaboration and peer learning purposes. In the next quarter, the CCRD team will oversee the printing of a final set of 100 fact sheet booklets and will support USAID in distribution as requested.

### **Task 1.1.3 Developing Lessons Learned on Adaptation**

The CCRD team has completed and submitted a first draft of a “good practices” document (formerly “Lessons Learned”). We broadened the focus away from USAID missions to the international development community at large. The team lengthened five of the case studies to tell a more compelling story about how these approaches typified the principles and practices stated in the report. An internal review and heavy edit was also carried out. Next steps include ensuring a consistent set of messages across other CCRD documents and efforts including CRIS, the Fact Sheets, and the mainstreaming guidance, among others. The document would also benefit from formatting as a final product and should include pictures and text boxes to highlight the key points made. The CCRD team will make the changes requested by the COTR during the next quarter.

### **Task 1.1.4 Prepare Case Studies To Demonstrate the Mainstreaming Guidance**

The CCRD Team, Jenny Frankel-Reed from the GCC Office, Jason Vogel (Stratus), Joel Smith (Stratus), Jessica Troell (ELI), and Phil Brown (IRG/Engility consultant), prepared a final report on the WASH case study in Iloilo, Philippines, following up on the July site visit. The report provides background on Iloilo and describes water security and governance conditions. The report identifies and analyzes 22 options for improving water security in Iloilo. It provides a preliminary analysis of the options based on the team’s judgment.

### **Task 1.1.5 New Directions in Pilots and Research**

#### **Exploratory Small Grants and Pilots to Demonstrate the Mainstreaming Guidance**

In this reporting period, CCRD small grants program announced Request for Statements of Interest (SOI) that is aimed at academic institutions and is designed to support physical and social science, and engineering research related to climate change impacts and adaptation, with a focus on supporting good development outcomes despite climate change stress. CCRD has received a total of 38 SOIs. These will be reviewed for relevance. A subset of the SOIs will be invited to submit full proposals. The full proposals will be reviewed for both technical and financial merit, and awards announced by May 10, 2013. Grants are generally awarded for one year (from the date of signing a negotiated small grant agreement).

#### **Prepare Background, White, and Research Papers**

The CCRD team received more than 60 concept proposals for background, white, and research papers focused on climate change and development. From these proposals, the CCRD team has selected six to be taken forward as white papers. The purpose of the papers is to explore and to articulate the case for ways that CCRD can advance on a range of fronts in an innovative fashion. All six papers are now underway, covering the following topics: climate information in data-sparse situations (developed by International Research Institute for Climate and Society (IRI), Stratus, and ICF), using demographic health surveys to advance climate-resilient development (ICF and IRI), cost-effectiveness of adaptation options (Stratus and ICF), harmonizing the V&A approach with disaster risk management planning (IRG and ICF), private sector engagement (ICF and Stratus), and creating positive incentives for

adaptation (Stratus and IRG). Each writing team has developed an extended outline and convened a call with partners to discuss the outline and writing tasks. All writing teams aim to finalize their papers in the next quarter.

## **ACTIVITY 1.2 INFORMATION, TOOLS, AND SCIENCE AND TECHNOLOGY**

### **Task 1.2.1 Understand USAID Bureau and Mission Needs for Climate Change Adaptation Tools**

To promote understanding and awareness of adaptation issues, the CCRD team is scoping out ways to develop and incorporate adaptation games to complement CCRD activities. Games would be designed to engage key audiences in thinking about the various dimensions of climate change adaptation through an entertaining vehicle. During this quarter, the CCRD team completed a brief prospectus that articulated the potential purposes, target audiences, key messages, game dimensions, game formats, etc. for CCRD games. The prospectus was delivered and discussed during January's Senior Advisory Committee meeting.

CCRD team members also met with potential collaborators to develop an adaptation game, sharing lessons learned and best practices. They adapted a game originally developed by the Red Cross/Red Crescent for use during the Kazakhstan training that was used to demonstrate the utility and value of seasonal forecasts and insurance (see Task 1.3.4). The game was played multiple times during the Kazakhstan trip. The CCRD team began to develop a game to be incorporated into the Adaptation day of USAID's Global Climate Change Training. The game will be designed to reinforce what constitutes an adaptation activity (versus non-adaptation activities) and what qualities make activities eligible for USAID Adaptation funding. It will be piloted at the Mission-based training in El Salvador from May 6-10.

During the next quarter, the CCRD will complete the development of an adaptation game to incorporate into USAID's GCC training and pilot it at the Mission-based training in El Salvador from May 6-10. They will continue to identify opportunities to incorporate games into CCRD activities, including developing a game for use in the Climate Resilient Infrastructure Services program.

### **Task 1.2.3 Support the United Nations Development Programme (UNDP) Adaptation Learning Mechanism (ALM) Website**

In the second quarter, Eric Stephan (IRG/Engility consultant) created a preliminary redesign for the ALM website that included a content map, page explanations, and sample wireframe. The document was reviewed and approved by Jenny Frankel-Reed (USAID) and Andrea Egan (UNDP). Since approval was given to move forward, CCRD staff have begun pulling together country-specific documents as well as begun reaching out to other USAID programs for additional adaptation documents to add to the site. Aten Design Group has been tapped to design and program the website with the guidance of Eric Stephan. The website is slated to be completed in the next quarter.



## **ACTIVITY 1.3 TECHNICAL ASSISTANCE AND CAPACITY BUILDING SUPPORT**

### **Task 1.3.3 Support Development of USAID's Federal Agency Climate Change Adaptation Plan**

The purpose of this task is to provide support for the development of USAID's Federal Agency Climate Change Adaptation Plan, under Executive Order (E.O.) 13514, Federal Leadership in Environmental, Energy, and Economic Performance.

In this quarter, the Adaptation Plan was distributed for public comment on March 1, 2013. The CCRD team is collecting comments and will consider how to reflect the comments in the new Plan once the public comment period ends on May 1, 2013. Next quarter, the CCRD team will review and respond to public comments as requested.

### **Task 1.3.4 Provide Support for USAID Integration Pilot in Kazakhstan**

CCRD has been engaged to support the USAID Integration Pilot awarded to UNDP titled "Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security" (CRW) on several activities, including Activity 2.1 "Needs assessment and stakeholder consultations." During this quarter, CCRD conducted four stakeholder workshops to facilitate discussions with stakeholders on the challenges facing the wheat sector in Kazakhstan, with a primary focus on the impacts of climate change and variability; one one-day stakeholder meeting in Astana (the capital of Kazakhstan) with major government and private sector groups; and three one-day stakeholder meetings with farmers and local officials in the northern wheat growing regions. These workshops were a collaborative effort between the UNDP-funded CRW Project Team and the USAID-funded and Washington, DC based CCRD Project, with support from the Ministry of Agriculture and KazAgroInnovation.

In advance of the four stakeholder meetings, CCRD provided training for five facilitators, recruited by CRW from CRW Project staff, in conducting small group exercises. The training of trainers was held on Thursday, February 21, 2013, and the four stakeholder consultations were carried out over a two-week period, from February 22 – March 1.

The first workshop, a one-day stakeholder meeting with major government and private sector groups, was held in Astana on Friday, February 22. This consultation was attended by 19 participants, and brought together national-level policymakers and other stakeholders that support the wheat sector. Participants discussed general challenges facing the wheat sector, climate impacts, vulnerability, and options for addressing climate impacts, food security in Central Asia, and Kazakhstan's role as a wheat exporter. This consultation utilized a combination of presentations, small group discussions, and plenary discussions. CCRD staff made the technical presentations and the trained facilitators guided the small group discussions on four topics: (1) general challenges in the agricultural sector (primarily for context); (2) perceptions of climate change and variability in the wheat sector; (3) vulnerability of the sector to climate change and variability; and (4) brainstorming on a range of adaptation options to address climate variability.

The subsequent three one-day regional stakeholder meetings in the northern wheat-growing regions were held in three different oblasts (regions): Kostanay (in the city of Kostanay), Akmola (in the village of Shortandy), and Northern Kazakhstan (in the city of Petropavlovsk). These regional workshops brought together farmers and local authorities to discuss the general challenges facing wheat growers and the impacts of climate change and variability on farm-level decision-making. The first regional stakeholder meetings were held in the city of Kostanay on February 25, at the Kazakh Research Institute of Agriculture, with 26 participants in attendance. The second regional stakeholder meetings were convened in the city of Shortandy on February 27, at the A. Barayev Kazakh Research Institute ("Grain Institute")

with 24 participants in attendance. The third and final regional stakeholder meetings were held at the Hotel Skif in Petropavlovsk on March 1, 2013, with 24 participants in attendance. These meetings included technical presentations and small group and plenary discussions. The agenda for these meetings included small group discussions on decision-making and the use of climate information.

## **ACTIVITY 1.4 SUPPORT FOR GENDER DEVELOPMENT**

### **Task 1.4.1 Technical Assistance to the Office of Gender Equality and Women's Empowerment**

During the 2<sup>nd</sup> quarter, Ed Carr (University of South Carolina) completed a literature review focused on gender, adaptation, and development. The literature review was designed to fill a knowledge gap at USAID, helping USAID to understand “gender” as a more complex issue than simply women versus men. The literature survey focused primarily on gender issues in agriculture and rural livelihoods.

# D.OBJECTIVE 2: COORDINATE WITH OTHER US GOVERNMENT AGENCIES TO SUPPORT MAINSTREAMING

Objective 2 activities, which entail coordinating with other US Government (USG) agencies to support mainstreaming, focused during the reporting period on support for the Adaptation Partnership (AP), including finalizing two workshop reports and initial preparation for a follow-on workshop.

## **ACTIVITY 2.1 ADAPTATION PARTNERSHIP WORKSHOPS**

### **Task 2.1.1 Conduct Adaptation Partnership Workshops**

#### **Climate Change and Security (Washington, DC)**

The Climate Change and Security workshop report was completed by the Woodrow Wilson Center with the help of IRG/Engility during the second quarter. Once completed, the report was sent to all participants and uploaded to the AP site. Further dissemination is expected from the Wilson center. The Wilson Center, USAID, the US Department of State, and the Institute for Security Studies (ISS) are in discussion about when and where a follow-on workshop should be held.

#### **International South-South Learning Workshop: Scaling Up Good Practice in Climate Services for Farmers in Africa and South Asia (Dakar, Senegal)**

The Scaling up Good Practice in Climate Services for Farmers in Africa and South Asia (December 2012) workshop report was published in April 2013 by the Consultative Group on International Agricultural Research (CGIAR) research Program on Climate Change, Agriculture, and Food Security (CCAFS). The report was sent to all participants and uploaded onto the CGIAR website. As a follow-up to the workshop, proposal writing workshops will be organized in Africa and Asia to help participants apply for competitive grants to implement project ideas developed during the December, 2012 workshop.

## **ACTIVITY 2.2 ADAPTATION PARTNERSHIP COMMUNITIES OF PRACTICE**

### **Task 2.2.1 Facilitate Adaptation Partnership Communities of Practice**

During the second quarter of FY 2013, a significant effort was made on behalf of CCRD to improve the website functions that will be used to facilitate the High Mountain Glacial Watershed Program and Climate Services Partnership CoPs. New designs for the sites were finalized in the second quarter and

will be implemented in the third quarter of FY 2013 (see Task PM-6). Partner interaction will be encouraged in the coming quarter with increased use of online discussion, webinar, and forum tools.

### **Task 2.2.2 Develop Adaptation Partnership Materials**

During this reporting period, CCRD finalized and produced the report for the AP workshop held in Washington, DC, entitled “Climate Change and Security,” which took place November 1-2, 2012. This report has been finalized and produced.

## **ACTIVITY 2.3 DESIGN AND DEVELOP IMPLEMENTATION PLAN FOR USAID/PEACE CORPS PARTNERSHIP**

The CCRD team met with USAID to discuss the USAID/Peace Corps Partnership activity very briefly in January at the Senior Advisory Committee. USAID then met with the Peace Corps to discuss implementation of the activity and briefed the CCRD team. In the discussion with Peace Corps it was decided that the partnership would move forward but at a pace the Peace Corps could handle as they are limited in their capacity at this time. The feasibility of a small grants program was also discussed. It was decided that the management burden of very small grants needed for Peace Corps members may be too difficult to accommodate and that another form of funding for adaptation implementation should be explored.

In the next quarter, the CCRD team will continue to follow up with the Peace Corps on potential opportunities for partnership, including the development and dissemination of training for Peace Corps volunteers. The CCRD team will continue to honor the request of Peace Corps that the activity happen at a pace they can accommodate.

# E. OBJECTIVE 3: IDENTIFY AND RESPOND TO EMERGING ISSUES AND FILL GAPS

Progress was made on the four activities under Objective 3, identifying and responding to emerging issues and filling gaps. CCRD continued follow-on work in Jamaica, held a Coastal Climate Change Workshop in Tanzania, began preparing for the Living Laboratory workshop in Peru for the High Mountain Glacial Watershed Program, continued activities under the Climate Services Partnership, and kicked off activities of the new Climate Resilient Infrastructure Services Program.

## ACTIVITY 3.1 SUPPORT ADAPTATION PLANNING AND IMPLEMENTATION

### Task 3.1.1 Support Preparation of National Adaptation Plans (NAPs)

CCRD, in collaboration with USAID, has been supporting a process for developing an integrated policy framework for the Government of Jamaica that incorporates climate considerations. During this quarter, discussions have been carried out between USAID and the Government of Jamaica regarding next steps. However, the slowness of progress within the Government has limited CCRD's ability to contribute to the policy framework. More work on the framework is anticipated for the next quarter. Also in the first quarter, CCRD provided support to a workshop in Tanzania to inform the country's national adaptation planning process, and began preparation for a regional workshop expected to take place in May, 2013 in Accra, Ghana to support adaptation planning at both the national and regional levels in West Africa.

#### Tanzania Coastal Climate Change Workshop

Working with Tanzania's Vice President's Office, USAID/Tanzania, and the University of Rhode Island's Coastal Resources Center, CCRD conducted a coastal-focused workshop to support and inform Tanzania's national adaptation planning process. The workshop was attended by about 30 people on Day 1 and 25 people on Day 2, with representatives from Government (e.g., Vice President's Office; Ministries of Agriculture, Water, Livestock and Fisheries, Natural Resources and Tourism; Planning Commission), NGOs (e.g., WWF), research institutes (e.g., WIOMSA), and the private sector (Norwegian oil company). The objectives of the workshop included: vetting USAID's mainstreaming approach with the stakeholder group, eliciting quality inputs on the coastal sector that the government could use as they move their NAP process forward, and stimulating thinking about criteria for evaluating adaptation options. The Coastal Resources Center will develop a first draft of the workshop report.

### Task 3.1.2 Develop and Pilot Fast Track Implementation (FTI) Concept

During this quarter, the CCRD team presented the initial concepts for Fast Track Implementation, which uses a streamlined approach for identifying adaptation options that can be implemented quickly, at the Senior Advisory Committee meeting in January. The CCRD team submitted a revised concept paper

that incorporated comments received from the Senior Advisory Committee. The CCRD team also submitted a draft budget through August 2013.

The CCRD team also began working to identify criteria for applying FTI. From this work, the team submitted a memo “Criteria for Identifying Fast Track Implementation Opportunities” on March 25, 2013, and another entitled “Fast Track Implementation Sector Identification” on March 29, 2013. These materials outline the FTI approach and will be used to inform work in the next quarter.

In the next quarter, the CCRD team will work on developing a set of FTI options. This will first be done for one specific sector to serve as a template. After collecting feedback from the larger CCRD team, this activity will be expanded to additional sectors. The CCRD team will also begin to apply criteria to identify potential suitable locations for application and work with partners (particularly USAID) to identify and refine potential areas (especially those which could support current CCRD pilots/efforts; work with stakeholders).

## **ACTIVITY 3.2 GLACIERS AND MOUNTAINS**

### **Task 3.2.2 Develop the HMGWP’s Community of Practice**

#### **CoP Membership/Expectations**

CoP membership was expanded as per the recommendations and networks of interested parties. New prospective members were sent the introductory email and information about the goals of the HMGWP. The additional members within this quarter mainly consisted of individuals from the World Wildlife Federation as well as UNDP – Pakistan. The current CoP mailing list has 112 active members and 148 people interested in the program (Participant List\_Marc2013.xlsx). In an effort to improve the CoP, a Steering Committee was formed last year, and the first meeting is planned for the end of April once discussion board capabilities are developed for the new HMGWP website.

#### **CoP Platform**

Kate Voss is in continuous contact with the Engility web team (Rosamund Mische John, Radha Arunkumar, and Meghan Hartman) to develop the new HMGWP website. The final design was selected (see “HMGWP\_WEBSITE\_WIREFRAME\_122012.pdf”) and is currently being developed by the website design team. A conference call was held on Friday, December 30th, 2012 and Wednesday, March 13th, 2013 to finalize the website design and develop a plan for final content upload and launch. The website design team should have the prototype ready by the last week of March for review, and content will be uploaded that week. The expected launch date is during the first week of April assuming the design and content upload goes smoothly. Since the new site is currently being developed, some content (such as the September/October Expedition Logs) will not be uploaded to the old Adaptation Partnership site, but will be added to the new HMGWP site exclusively.

#### **CoP Services/Expansion**

The Fall 2012 quarterly newsletter was sent to the Community of Practice on January 14, 2013 (“HMGWP\_FALL\_NEWSLETTER\_Final.pdf”). The next quarterly newsletter (Winter 2012/2013) is currently in review with Engility’s Meghan Hartman and will be sent to the CoP as soon as final revisions and design are completed (“text\_Winter Newsletter\_v3.docx”). In addition to the newsletters, the final revisions to the first HMGWP CoP webinar were completed. The topic of the first webinar is Glacial Lake Rapid Reconnaissance and will be launched the third week of April once the new HMGWP website is ready (see “HMGWP Webinar#1\_GLRR\_v9\_small.pptx”). The webinar will provide an ideal opportunity to highlight the new website and will be the foundation for the first HMGWP CoP Steering Committee meeting, which will occur the week after the webinar is launched. A second webinar will be prepared for the end of June 2013 or early August 2013 based on timing with the HMGWP conference.

### **CoP Meetings**

The invitation to the 3<sup>rd</sup> International HMGWP CoP conference was finalized and sent to the CoP membership on Sunday, February 10, 2013 (see “Peru2013\_Invite\_final.pdf”). Kate Voss maintained a log of all RSVPs and, based on the response, a Participant List and suggested funding was provided to Engility and USAID for review. The decisions for funding are in the process of being finalized and, once complete, an email and Registration Form will be sent to all Participants alerting them of their level of funding (full, partial or none) (see “FINAL\_Registration form\_Formulario de registro.doc”). Kate Voss will coordinate with P&R to ensure that all registration information is up-to-date.

### **CoP Outreach and Services**

The Winter 2012/2013 newsletter features the interdisciplinary nature of the HMGWP CoP membership, with a particular emphasis on the social science efforts of HMGWP CoP members. An article was written by CoP Member Ornella Puschiasis about a session at the American Anthropologist meeting this past December. Four HMGWP CoP members organized their own session and summarized the meeting for the Winter newsletter. In addition, two HMGWP CoP members’ photographs were selected for the Association of American Geographer’s photo contest and their images and photo essay are included in the newsletter. Finally, a summary of HMGWP activities at conferences and recent research is featured. Future newsletters will continue to include news, updates, case studies, stories from the field, best practices, tools, funding opportunities, and upcoming events. The first HMGWP webinar highlights the Glacial Lake Rapid Reconnaissance (GLRR) work, particularly with the ground-penetrating radar and bathymetry technology and will be launched in coordination with the new HMGWP website in April. The new HMGWP website will launch the first week of April and will feature a new, interactive interface to inspire increased collaboration and discussion among HMGWP CoP members. Content for the CoP is continuously collected and posted to the CoP platform/website.

### **CoP Presence at Workshops/Conferences**

Alton Byers attended (self-funded) the American Alpine Club (AAC)’s Annual Meetings and 50<sup>th</sup> Anniversary Celebration of the first U.S. climb of Everest on February 22 and 23, 2013 in San Francisco, California. The event provided the opportunity to continue discussions with Ellen Lapham, Director of the AAC’s Conservation Program, about the on-going HMGWP-AAC Climber Scientist program collaboration; meet with HMGWP Climber-Scientist grantees Adam French and Ulyana Horodyskyj for research project updates; meet with National Geographic Society (NGS) and North Face representatives to discuss plans for the forthcoming NGS Everest book (which Byers co-authored), and May 6, 2013 speaking engagement at NGS Live!; meet with International Union for Conservation of Nature (IUCN) Mountain Protected Areas representative Linda McMillan; and establish contact with a range of prospective HMGWP donors.

### **Task 3.2.3 Design and Conduct the Climber-Scientist Competitive Solicitation**

TMI and CCRD grants Manager continued to monitor the progress of the Climber-Scientist Small Grants. This included responding to numerous emails from grantees and CCRD staff regarding the initiation of the grants.

Activities that commenced during the reporting period include the following:

- During the quarter HMGWP staff assisted with technical monitoring of small grant progress and provided technical assistance and mentoring to recipients as requested by grantees or CCRD management. Several interim progress reports of grantee activities were received and reviewed for progress. One grantee Ulyana Horodyskyj of University of Colorado at Boulder was assisted with obtaining a research permit for her research in Sagarmartha National Park in Nepal.



- During the quarter, the HMGWP has organized the 3rd International Workshop on Climate Change Adaptation and Risk Management in High Mountain Glacial Watersheds. The Workshop includes participation of all Climber-Scientist Small Grantees in the agenda as speakers. In-country meetings will be held in Huaraz, Peru with grant recipients to facilitate sharing of approaches and lessons learned and monitor progress.

### **Task 3.2.4 Implement CoP Pilot Project and Research**

Activities that commenced during the reporting period include the following:

**2013-2014 Nepal Program Workplan:** Year Two (2013-2014) activities of the High Mountain Glacial Watershed Program in Nepal will focus on broadly supporting high-mountain glacial landscape and watershed climate change adaptation, resilience building, and climate-smart development. The focal work area will continue to be the Khumbu Valley because of the magnitude of the challenges it faces (e.g., from an Imja Lake GLOF event), its economic importance to Nepal, the vulnerability of the rural population in the area, and downstream communities dependent on the services it provides. Designing, partnering, and initiating a Local Adaptation Plan for Action for the Khumbu Valley will be central to Year Two activities and deliverables. Technical reports were submitted describing several critical aspects of Imja Lake including the volume of water contained in the lake at the present time and a mapping of the ice present in the terminal moraine dam of the lake. Work is ongoing to estimate the reduced risk of downstream community members from an Imja Lake GLOF if various risk reduction measures are undertaken (HMGWP Imja GPR Paper - Draft Final 25 Oct 2012 CCRD 1.docx, and HMGWP Imja Sonar Paper - Draft Final 31 Jan 2013 CCRD 1.docx). The HMGWP continues to coordinate closely with the UNDP-Nepal office on their proposed Imja Lake risk reduction project proposal. Two papers describing the work of the HMGWP team in the Hinku and Hongu valleys of Nepal have been accepted for publication in technical journals (Hongu Paper Abstract 20March2013.docx, Hinku\_Abstract-Byers.docx).

**Nepal Local Adaptation Programme of Action:** The facilitation of the LAPA production process began in January 2013 and builds on TMI's decades of work in the region, the September 2012 community workshops, IRG/Engility's training of trainers' workshop in Kathmandu (which engaged local stakeholders in climate change adaptation and development activities and planning), plus various trainings of TMI staff in climate change principles and adaptation methodologies. The integration of USAID's Climate Resilient Development Guidelines (USAID 2013) and principles into the Khumbu LAPA framework will be included where appropriate. Follow-up meetings with Khumbu stakeholders from all of the September workshop consultations were held in Kathmandu in early March, 2013. A visit to the District Center of Salleri was made in mid-March to meet and consult with government representatives. A LAPA Framework was drafted that contains guidelines, summation of initial work, and a plan for developing a draft LAPA action plan was produced, building on the information obtained during the September 2012 community consultations in Phakding, Namche, and Dingboche as well as several follow on meetings in Kathmandu. The draft LAPA provides the guidelines necessary for implementation of the full, detailed, and community-based LAPA by late 2013 or early 2014.

**Peru Local Adaptation Programme of Action:** Three sub-tasks were initiated in the Cordillera Blanca region of Peru in January, 2013 that include (i) planning and building scientific, social, and institutional capacity for climate resilient development and risk management in a key high mountain watershed, (ii) evaluating climate change risks and vulnerability for a high-mountain urban areas (the city of Huaraz), and (iii) planning for the implementation of pilot projects to understand, address, and mitigate glacial lake outburst flood risk and lake recession impacts. The HMGWP, through an MOU signed between TMI Ministry of Environment of Peru, is cooperating with the Ministry of Environment of Peru/Inter-American Development Bank project to strengthen Peru's regional capacities to adapt to climate change in the development and implementation of the Quilcay (Palcacocha) Valley and Huaraz Local



Adaptation Plan as a pilot case for glacier watershed mountains in Peru. This cooperation is expected to translate into the leveraging of additional funding and small grants to implement Quilcay Local Adaptation Plan activities and mobilize political, economic and technical support from GOP agencies in the region.

## **TMI's High Mountain Glacial Watershed Projects and Leveraged/Influenced Funding**

### **1. HQ/Global Programs**

- USAID/Engility, High Mountain Glacial Watershed Program, under the Climate Change Resilient Development (CCRD) program in the Water IQC. Natural hazard risk mitigation (especially from Glacial Lake Outburst Floods), high mountain adaptation planning, community of practice development, capacity building. Work focused on Nepal (Khumbu Valley / Mount Everest Region) and Peru (Cordillera Blanca). Ca. \$1,000,000 directly and \$600,000 to partners to date from 2011 to present and continuing (with UT at Austin).
- National Science Foundation, \$75,000, Adapting to a World without Glaciers workshop in Peru, July 2009
- National Science Foundation, \$75,000, Andean-Asian Glacial Lake Expedition, Khumbu, Nepal, September 2011 (with University of Texas (UT) Austin)
- National Geographic Society/Waite Grant Program, \$20,000, and Hokkaido University, \$10,000.00, assessment of dangerous glacial lakes in the Hongu valley, Makalu-Barun National Park, Nepal, Phase I, 2009.
- National Geographic Society/Waite Grant Program, \$20,000, assessment of dangerous glacial lakes in the Hongu valley, Makalu-Barun National Park, Nepal, Phase II, 2010.
- National Geographic Society/Blackstone Challenge Grant, \$50,000, alternative energy, solid and human waste management, and adventure tourist awareness building in alpine ecosystems of the Everest and Makalu-Barun National Parks, Nepal, 2011 and 2012
- **Leveraged/Influenced:** UNDP Nepal, Community-Based Flood and Glacial Lake Outburst Risk Reduction Project, Khumbu, Nepal, estimated \$7 million, explicit request for The Mountain Institute and UT Austin to participate/backstop the (1) risk reduction, (2) monitoring, (2) disaster knowledge dissemination and training, and (4) community based early warning system objectives, and to take the lead in development of the Khumbu LAPA (Local [climate change] Adaptation Plan of Action].

### **2. TMI Andes**

- **USAID/Peru: Peaks to Coast:** “From the Glaciers to the Coast: Building Climate Change Awareness and Resilience in the Ancash and Piura Watersheds of Northern Peru (USAID-TMI Cooperative Agreement 527-A-00-09-0000-00), implemented between July 15, 2009 and July 14 2012 (\$1.5 million). Detailed project design was informed by the conference, *Adapting to a World Without Glaciers* (July 2009) ([http://transition.usaid.gov/our\\_work/environment/climate/docs/Adapting\\_to\\_a\\_World\\_Without\\_Glaciers.pdf](http://transition.usaid.gov/our_work/environment/climate/docs/Adapting_to_a_World_Without_Glaciers.pdf)) that gathered science and policy-makers in the Santa basin. In the framework of the Peaks to Coast project and the trust built by previous people-to-people exchanges and this conference, TMI and IUCN championed the *Santa Water Forum*, a dialogue mechanism that is now

operating through a committee of public and private organizations (see <http://www.foroaguasanta.org/>). The forum promotes a shared inclusive vision for the watershed among all stakeholders, increasing access to scientific information and dissemination of the principles of integrated watershed management.

- IUCN/Government of Finland US \$756,000 for the next 30 months, grant to TMI to implement a climate change adaptation project in Piura with paramo communities (not a glacier watershed but USAID adaptation methodology is to be applied).
- AVINA Foundation/Coca Cola Foundation water replenishment program (currently under consideration) multiple year grant of approximately \$100,000.00 per year to further develop the water fund established under the USAID Peaks to Coast project with water users of Piura lowlands who benefit from paramo conservation (complements grant above).
- IUCN/Government of Germany (currently under consideration) \$210,000 to identify and then implement pilot ecosystem-based, “no-regret” adaptation strategies in a location in the Lima highlands.
- **Leverage:** TMI Peru is cooperating with Peru's National Council on Science, Technology and Technological Innovation (CONCYTEC) in their plans to set up a Research Center of Excellence on water, center that will deal as a priority issue with glacier recession and ecosystem dynamics associated with water replenishment issues.
- **Leveraged:** Ministry of Environment of Peru/Inter-American Development Bank will invest up to \$200,000 in 2013-2014 at Quillcay valley in implementation of the LAPA and capacity building activities. These funds are to be invested in the process to speed up public investment (e.g. feasibility studies, training municipalities in the design of public investment for climate change adaptation projects). Accessing public funds may take two years but the investments will be of significant scale (i.e., several individual projects with a value of US \$2-4 million/project).
- **Leveraged:** \$4 million in climate change adaptation funding lined up for climate change resilient development from the Peruvian Government to the Three Rios Commonwealth of Municipalities.

#### **TMI Nepal**

- **Climate resilient livelihoods:** Medicinal and aromatic plant (MAPs) work including cultivation and climate resilient income in Rasuwa and Dhading districts: \$58,900 per year for 2 years = \$117,800 from the Pro Victimis Foundation.
- **Climate resilient livelihoods:** All private, individually funded MAPs work for Upper Arun work, approximately \$40,000 per year times two years = \$80,000, Dudley Foundation, PerAdam Foundation and various private donors.
- Programmburo Internationale Klimascultzinitiative, Federal Ministry of Environment, Nature Conservation and Nuclear Security, German Government. \$254,628.00 Climate Change Adaptation Project, western Nepal,
- High mountain REDD work: \$126,000.00/two years from Wildlife Works Carbon<sup>LLC</sup>.

#### **UT at Austin's High Mountain Glacial Watershed Projects and Leveraged/Influenced Funding**

- Uncompensated salaries for PI McKinney, fellowship supported graduate research assistants Somos, Cuellar, and Rivas and tuition of fellowship supported students Somos, Cuellar, and Rivas, and out-of-state tuition remission for HMGWP supported graduate research assistants Chisolm and Rounce: \$217,392.

### Recent Reports

1. Ground Penetrating Radar Survey for Risk Reduction at Imja Lake, Nepal, by Marcelo Somos-Valenzuela, Daene C. McKinney, Alton C. Byers, Katalyn Voss, Jefferson Moss, James C. McKinney (submitted as a deliverable last quarter, awaiting comments from Engility)
2. Bathymetric survey of Imja Lake, Nepal in 2012, by Marcelo A. Somos-Valenzuela, Daene C. McKinney, Alton Byers, and David Rounce (submitted as a deliverable this quarter)
3. Local Adaptation Programme of Action (LAPA) Framework by Alton Byers, Ang Rita Sherpa, Phurba Sherpa, Brian Peniston, and Dambar Thapa (submitted as a deliverable this quarter)
4. Safety Measures in Dangerous Glacial Lakes in the Cordillera Blanca, Peru by Cesar Portocarrero (submitted as a deliverable this quarter – a decision needs to be made regarding final editing, formatting, and publication of the document in time for the July Peru workshop)
5. Research at Huascarán National Park, by Daene McKinney, Rachel Chisolm, Marcelo Somos-Valenzuela (submitted as deliverable this quarter. Document includes reporting of GPR investigations of Arteson Glacier and Pastoruri Glacier in Peru in July 2012).
6. Guide to the Cordillera Blanca/ Gui Cordillera Blanca (in Spanish), translation completed for improved access to knowledge about watersheds and high mountain ecosystems (submitted as a deliverable this quarter)
7. *Percepciones Catac* and *Percepciones Quillcay* by Cristina Giraud and TMI Peru staff – summary of risk perception studies completed in Catac and Quillcay watersheds (submitted as a deliverable this quarter)
8. *Definición de necesidades* by Oliver Gonzales – summary of the public investment work to date and strategy to ensure private investment projects are completed by Ancash municipalities (submitted as a deliverable this quarter)
9. Triptico Quillcay and Triptico by TMI Peru staff – pamphlets regarding watersheds and risk of a GLOF in Quillcay (submitted as a deliverable this quarter)

### Recent Related Publications

1. “Contemporary human impacts on subalpine and alpine ecosystems of the Hinku valley, Makalu-Barun National Park, Nepal,” by Alton Byers, accepted for publication on March 19, 2013 by *Himalaya: The Journal of the Association for Nepal and Himalayan Studies*.
2. “Glacial Lakes of the Hinku and Hongu Valleys, Makalu-Barun National Park and Buffer Zone, Nepal,” by Alton Byers, Daene McKinney, Marcelo Somos, Teiji Watanabe, and Damodar Lamosil, accepted for publication by *Natural Hazards* on March 20, 2013
3. The Nature of Everest, by Alton Byers. In: *The Lure of Everest*. Washington, DC: National Geographic Society, March 2013.
4. *Mountains: Human and Physical Dimensions*, edited by Martin Price, Alton Byers, Don Friend, and Thomas Kohler. University of California Press at Berkeley. Publication date: September 2013.
5. *Discover Magazine*, “An Interview with Alton Byers,” forthcoming in May 2013.

### Forthcoming Presentations

1. NGS Live!, 6 May 2013, “The Call of Everest,” Alton Byers with Conrad Anker, Mark Jenkins, Emily Harrington, National Geographic Society, Explorers Hall

2. Foreign Service Institute, 9 May 2013, Alton Byers on “An Introduction to the High Mountain Glacial Watershed Program.”

## **ACTIVITY 3.3 CLIMATE SERVICES**

### **Task 3.3.2 Coordinate Activities of the Climate Services Partnership**

The Secretariat has continued receiving feedback from the Second International Conference on Climate Services (ICCS2) attendees with regard to the content, structure, and organization of the conference, via a survey circulated in early January. We are aiming to utilize this input, as well as a separate solicitation of ideas to help inform the planning and development of ICCS3.

Initial members of the ICCS3 Organizing Committee have been identified. They include representatives from Jamaica Met, Caribbean Institute of Meteorology and Hydrology, World Bank (WB), UKMO, National Oceanic and Atmospheric Administration (NOAA), CCAFS, NCAR, the CSC, and other members of the CSP Coordinating Group. We have made contact with potential local conference organizers and conference venue. Initial ideas for agenda topics and/or side event sessions have been discussed with several CSP members and a short summary of ideas has been prepared to discuss further with the membership and potential theme leads.

Based on further consultations, the Secretariat developed a revised set of ideas for CSP near-term priority activity areas. These include fostering communities of practice, building knowledge and capacity across the Partnership, technical support and data access, assessment and evaluation, and the development of a new resource, the CSP Knowledge Exchange.

Plans have been developed for launching the CSP Knowledge Exchange. We will utilize the Adobe Connect facilities for the webinar components, and the online Forum facilities as developed for CCRD for ongoing discussion around Knowledge Exchange topics. The first webinar will be hosted in early April 2013, entitled “Stakeholder Involvement through the EUPORIUS project,” and delivered by Carlo Buontempo, UKMet.Office. We have also been in discussion with GIZ about an online forum they are hosting for a set of the GIZ project partners, which will have similarities with the Knowledge Exchange. We have developed plans to link these platforms so as to provide additional contributions to the Exchange, and to engage a wider audience in the dissemination and discussion of material presented through the GIZ platform.

The CSP Secretariat has been working to build on the outcomes of the CCAFS/WMO/USAID/CSP workshop “Scaling Up Climate Services for Farmers in Africa and South Asia,” with the goal of assisting in the development of collaborative proposals and projects among the participants, and utilizing the CSP platform to promote a focus area on climate services for farmers. We will look to provide exposure for this activity at ICCS3 and other relevant forums. Working with the sponsor group, we have developed plans for organizing a set of planning/proposal development workshops in 2013 for several of the regional subgroups, and one or more cross-cutting theme groups. CCRD will provide financial support, and technical assistance, for these workshops, and can provide support through its small grant program awards for initial activities of a few groups. CSP will assist in administering the small grants process, can serve as a resource, as needed, for expertise/partners, and a means of communication/dissemination among the subgroups and the wider CSP network.

We have developed an active exchange with the Sustainable Business Institute and the United Nations Environment Programme (UNEP) Financial Initiative, with regard to developing collaborations in the area of climate services for financial services, and more broadly a strategic linkage between climate and financial services as components of an integrated (and sustainable) climate risk management capability. We are working to connect partners and support a knowledge-gathering project (involving both climate

information providers and financial services “users”) and discussing the possibility of a collaborating on a white paper on climate and financial services.

We have had an active exchange and meetings with World Vision International (WVI) over this quarter. This builds on the discussions at ICCS2 where the case was made for collaborations with large development NGOs as a means to deliver climate services capacities, at scale and on the ground in many developing country settings which otherwise are very hard to reach. Discussions have focused on the development of specific climate services activities in east Africa (especially Tanzania), where WVI already has a major ongoing program through which climate services could be channeled. CSP is working with CCAFS, IRI, World Meteorological Organization (WMO) and other partners to promote and support an effort that could demonstrate scalable climate services for rural communities in Tanzania, and then the larger East Africa region.

A number of additional bilateral meetings/conference calls were undertaken over the period, regarding new partner development, workshop or project planning, institutional linkages, or resourcing. Noteworthy among the organizations engaged were: Climate Services Center, Germany; World Bank; CDKN (Climate Development Knowledge Network); CIMH and CCCCC (Caribbean); CERFACS (Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique; ESIP (Earth System Information Partnership); NOAA; GFCS; GIZ; and UNDP. Three conference calls of the CSP Coordinating Group were undertaken during this period.

### **Task 3.3.3 Compile and Disseminate Current Climate Services Knowledge**

The CSP secretariat has been working with Engility’s web team, led by Rosamund Mische John, to further develop the CSP website. We have also worked with Fernanda Zemoglio to develop ideas regarding the improvement of our interactive database. A list of requested improvements from the website development tracker, and mock-ups for a possible redesign of the interactive map were prepared.

We have also developed an online Forum to support South-South collaboration on information tool development. This Forum will be incorporated into the CSP website; it will be led by IRI’s Remi Cousin and launched at the workshop in the Dominican Republic April 3.

### **Task 3.3.4 Conduct Case Studies and Assessments of Climate Services**

The CSP secretariat held a workshop March 11-12, 2013 in which the group developed a methodology for the assessment of climate services at relatively modest levels of investment. The methodology, will be further refined; supporting text will also be developed. Over the next quarter, the methodology will be used to evaluate the climate services; eventually, a synthesis document will point out strengths and weaknesses in the methodology itself, allowing us to improve it with for future evaluations.

### **Task 3.3.5 Economic Valuation of Climate Services**

Under Task 3.3.5, IRG/Engility and Stratus carried out the work described below and engaged in discussions on future efforts related to the economic valuation of climate services.

#### **Literature Survey and Synthesis Paper on Valuing Climate Services**

Janet Clements and Aaron Ray of Stratus revised the draft report on economic valuation of climate services across economic sectors in response to comments and feedback from members of the CSP Working Group on the Economic Valuation of Climate Services. The draft final report was submitted to CCRD for final proofing and production at the end of the quarter.

#### **Primer on Valuing the Benefits of Weather, Climate and Hydrometeorological Services**

CCRD Chief of Party, Glen Anderson, collaborated with Ms. Haleh Kootval of the World Meteorological Organization, to prepare a concept paper and annotated outline for the primer. He also



assisted in preparing the provisional programme for the four-day workshop to be convened next quarter in Geneva, Switzerland at the WMO headquarters.

### **Task 3.3.6 Climate Information Guide**

During this period, a second draft of the Guidance Note on Hydromet Services, commissioned by the World Bank was completed. Following discussions among USAID/E3, IRI, and WB on the topic of collaboration on climate services guidance under the CSP umbrella, IRI sent guidance material requests to the following institutions/stakeholders: GIZ, DFID, WB, USAID, IDB, WFP, RCRCCC, WMO, CSC, UK MET, World Vision, ADB, NCAR, CDKN, IFAD, UNEP, Mohammed Boulahya, JPI, UNDP, European Space Agency, NOAA, CCAFS, and AUSAID. IRI has received guidance materials from several institutions and has posted the materials on the CSP website following approval of the authoring institution. IRI developed a template to structure the review of the guidance materials and has started populating this template to better identify overarching themes, topics addressed, identify needs, gap areas, and possibilities to integrate and build on the materials.

### **Task 3.3.7 National/Regional-level Climate Services Development**

#### *Subtask 3.3.7.1 Climate service capacities and communities of practice for West Africa*

IRI has had initial Skype discussions with Dr. Abdou Ali at AGRHYMET regarding the YR2 technical capacity development activities. Tentative dates for the visit of IRI Scientist, Tufa Dinku have been set in July 2013. AGRHYMET has also requested a two-week training on data quality control (QC) and satellite rainfall estimation and merging, both parties are exploring options to fund this additional request.

#### *Subtask 3.3.7.2 Central America Follow up to Adaptation Partnership workshop*

IRI has begun organizing the logistical details required to host the YR2 workshops in Central America. Workshops will be held April 2-3, 2013 in the Dominican Republic, May 9-10, 2013 in Guatemala, and June 25-27, 2013 in Honduras. The online Forum to support South-South collaboration on tool development will be launched at this workshop.

#### *Subtask 3.3.7.4 National-level Climate Services development in Jamaica.*

The initial activities in engaging key institutions in Jamaica were completed during a visit from IRI team, joined by John Furlow of USAID, in early February 2013. This included a technical review with the Met Service, plus meetings with several groups, including the Office of Disaster Preparedness and Emergency Management, Planning Institute of Jamaica, Ministry of Agriculture and Fisheries, Rural Agriculture and Development Agency, University of West Indies (Institute for Sustainable Development, Center for Marine Science, Climate Studies Group), ACDI/VOCA, Water Resources Authority, Airports Authority of Jamaica, Caribbean Maritime Institute, Ministry of Land Use, Water and Climate Change. These are summarized in the scoping visit reports. Emerging from the consultations is the idea of focusing on climate services around managing drought. We will be following up on several fronts. First, technical training at IRI, and follow-up training in Jamaica, together with CIMH, perhaps the university and other collaborators. We will develop a plan to engage the National Drought Committee on the policy side. And we will work to establish a couple of working group activities that will bring together the decision making and climate communities, to establish priorities for particular climate services.

### **Task 3.3.8 Develop Climate Services Products for the Agricultural Sector**

Work under this activity during this quarter has been largely related to the start-up and staffing for the computer modeling efforts required to support this effort. Twenty applicants responded to the advertisement for the programmer position. Of these, four were screened by telephone and two of those

four were interviewed in person. A final recommendation was then made by the committee on February 20, 2013. The search progressed to discussion of acceptable targets of annual compensation and start date, and the full recommendation submitted to human resources for review of process, to ensure equal opportunity was afforded all qualified candidates, and approval of terms. An offer has been made and it is anticipated that the programmer will join the team on April 1, 2013.

### **Task 3.3.9 Climate Services Technical Backstopping of Development Programs**

IRI was consulted by Engility to assist in the framing of discussion points for the recent mission to Kazakhstan. There has been initial review and planning for IRI support for climate services development in Kazakhstan.

## **ACTIVITY 3.4: CLIMATE RESILIENT INFRASTRUCTURE SERVICES PROGRAM**

During this quarter, CCRD partner ICF further developed the Climate Resilient Infrastructure Services (CRIS) program. CRIS is developing and testing approaches that can increase the climate resilience of infrastructure assets and the services they provide in developing countries.

Considerable work was done in this quarter to further refine the focus of CRIS with USAID objectives, ensure engagement and collaboration with CCRD partners, and broaden the scope of the program to include working with USAID Missions. This work involved a briefing delivered at the CCRD SAC Meeting in January that presented the CRIS program and explored opportunities for CCRD collaboration in CRIS. Following the SAC Meeting, ICF worked with USAID to develop a briefing on CRIS that incorporated feedback and integrated support to USAID Missions as they invest in urban infrastructure services.

### **Task 3.4.1: Identification of Pilot Cities**

CCRD partner ICF made substantial progress on the identification and selection of pilot cities to work with under CRIS. The outcome of this effort was a short list of candidate cities in Africa, Latin America, and the Caribbean, and initial planning and logistics for a pilot selection scoping visit to Mozambique. Activities in the first quarter included the following:

1. ICF drafted and finalized criteria for the city selection. The criteria consisted of: (i) threshold criteria for screening a large number of cities to identify a pool of potential city participants, and (ii) qualitative criteria for evaluation and down-selecting through further research and consultations.
2. ICF applied the screening criteria to narrow the number of cities. ICF worked with USAID to consult with USAID Missions, CCRD partners, and various external stakeholders working on urban climate resilience in these areas to further refine the list. The result was a shortlist of cities in Mozambique, the Dominican Republic, and Peru.
3. ICF conducted initial research on the Mozambican and Dominican candidate cities. This information was assembled in tracking spreadsheets that summarized key demographic, infrastructure, climate, and climate vulnerability information. ICF reviewed information on donor activities, existing climate impact and vulnerability assessments, and general background on the pilot cities, with a focus on the Mozambican cities.
4. ICF worked with USAID and the USAID-Mozambique Mission to schedule a series of visits to the candidate pilot cities and potential partners in Mozambique, which will be conducted from March 28 through April 10. ICF coordinated with the USAID-Mozambique Mission to arrange travel and hotel logistics, local support, draft letters of invitation, and to schedule meetings with city officials and donor agencies working in Mozambique.

In the coming quarter (FY13 Q2), ICF will:

- Visit three candidate cities in Mozambique as well as national government offices in Maputo, to meet with city officials, national policy makers, and donor organizations working there. The objective of this visit will be to raise awareness of the CRIS program, gain a better understanding of activities underway at the local and national levels in Mozambique, and assess the interest and capacity of the candidate cities to participate in CRIS as pilots or peer cities.
- Conduct research and consultations to assess the qualitative criteria for pilot city candidates in the Dominican Republic and Peru. The objective of this research will be to gain a better understanding of the characteristics of the cities, their infrastructure, and ongoing activities that may help inform selection of a pilot city and other participants in CRIS activities
- Schedule and conduct visits to candidate cities in the Dominican Republic and Peru. ICF will coordinate with USAID and the USAID Missions to arrange travel logistics, identify local support needs, draft letters of invitation, and schedule meetings with city officials and donor agencies working in these two countries.
- Consolidate the information gathered on candidate pilot cities in Mozambique, the Dominican Republic, and Peru. Based on the information gathered and in consultation with USAID, CRIS will select two cities for participation as pilots in the first year.

### **Task 3.4.2: CRIS Support To Pilot Cities to Accelerate Climate Risk Management**

In this quarter CCRD partner ICF identified potential technical support needs and resources available to pilot cities. This included outreach to CCRD partners to learn more about technical services they offer and decision support tools that could be supported or applied to pilot cities (e.g., Cascadia's CIMPACT-DST). ICF also collected information on vulnerabilities, sensitive infrastructure, and existing assessments that have been undertaken in the candidate pilot cities in Mozambique.

ICF, in consultation with USAID, determined that visiting candidate pilot cities in Mozambique would be important to gauge the level of interest and capacity of the candidates. As a result, selection of the first pilot city was deferred to Q3. In the coming quarter, CRIS will initiate work with the first pilot city to identify city objectives and develop a work plan. This work will include planning meetings with city staff by phone and web conference, and in-country consultations.

### **Task 3.4.3: Fast Track Implementation Small Grants Program**

CCRD partners ICF and Engility developed and released the first CRIS small grant solicitation to approximately 60 organizations across the world. The objective of the first Call for Proposals is to identify and fund projects that involve direct collaboration with city governments in developing countries to increase the climate resilience of infrastructure services.

Activities undertaken in this quarter include the following:

1. ICF and Engility met to discuss the requirements and process for releasing a small grant solicitation under CCRD. At this meeting, the partners assigned responsibilities for developing the solicitation, and established a timeline of action items.
2. ICF developed an initial list of ideas for the specific objectives and scope of the small grant solicitation. This included options both for grants at the city level as well as the sub-city level (e.g., community organizations). In consultation with USAID, ICF developed the city-level ideas into the CRIS Call for Proposals. The sub-city level activities will be considered in subsequent CRIS solicitations.



3. ICF developed a list of recipients to receive the small grants solicitation. To ensure a strong, targeted group of organizations working in the focus areas of the solicitation and a balanced geographic representation, ICF developed the list by identifying participants in recent climate resilience workshops in Asia and Africa, through consultations with CCRD partners and external stakeholders, and internal reviews.
4. ICF and Engility coordinated on USAID review of the solicitation, finalization of the grant application form, the recipient list, and email text. Engility distributed the solicitation to the organizations on the recipient list and CCRD partners. USAID circulated the solicitation to select USAID Missions for distribution to local contacts.

The following activities will be undertaken in the coming quarter (FY13 Q3):

- Engility will receive responses to the Call for Proposals and initially screen the applications for completeness.
- ICF, in consultation with Engility and USAID, will review the proposals to screen the best applications. ICF will coordinate with USAID to select proposals that will be funded under the first round of small grants for CRIS.
- ICF, in coordination with Engility, will establish a process for monitoring the small grants to ensure they are meeting their objectives and timelines throughout the grant's period of performance.

#### **Task 3.4.4: Global City-To-City Information Exchange**

In this quarter, CCRD partner ICF took steps to flesh out the structure of the global city-to-city information exchange through research and consultations with other CCRD partners, USAID staff, and external organizations. ICF also began to outline a communications strategy for the CRIS program and developed several products to communicate CRIS to different stakeholders within USAID, USAID Missions, pilot city candidates, and other organizations. These activities consisted of the following:

- ICF developed a consultation plan spreadsheet with information on relevant organizations working on climate-resilient infrastructure in developing countries. ICF used the consultation plan to reach out to CCRD partners and external stakeholders to consult on pilot city selection, identification of possible advisory cities, members of existing urban adaptation and sustainability partnerships, and ongoing activities, including upcoming conferences and workshops.
- ICF took steps to develop a communications strategy for CRIS. This involved internal meetings to identify the audience, levels of engagement, communication objectives, and methods of communication that are available to CRIS. ICF also considered the CCRD communications plan to ensure that the CRIS communication strategy is consistent with broader CCRD goals.
- ICF developed a four-page overview of the CRIS program to communicate the goal, approach, and ways that CRIS's mechanisms will be used to build climate resilience in urban and USAID Mission infrastructure services. The overview was used to communicate CRIS through consultations with practitioners in the field and CCRD partners.
- ICF developed a tri-fold brochure of the CRIS program for outreach to pilot city candidates. The brochure summarizes CRIS's goal, benefits, activities, and ways that cities can get involved in concise, easy-to-understand language. The brochure was developed in English and translated to Portuguese for stakeholders in Mozambique. It will be used in outreach with pilot city candidates to provide more details on CRIS and help them understand how to engage with the program.

- ICF developed a draft of a white paper on pre-planning for post-disaster reconstruction. An outline for the white paper was presented at the SAC Meeting in January. ICF incorporated feedback and research into a draft white paper for internal review.
- The proposal submitted by ICF to conduct a CRIS workshop on pre-planning at the International Council for Local Environmental Initiatives (ICLEI) Resilient Cities Congress in Bonn (May 2013) was not accepted. However, CRIS has been encouraged to resubmit and propose to conduct a workshop on this topic at the 2014 Congress. A follow-up meeting with ICLEI representatives (see below) was held to further develop this concept.
- Specific meetings and consultations that ICF carried out include the following:
  - A meeting with Stephanie Rust from the Institute for Sustainable Communities (ISC) to discuss their Leadership Academy and model of peer-learning engagement. The outcome of the meeting was a better understanding of ISC's intensive peer-learning process, and of the possibilities for collaboration with peer-learning objectives under CRIS.
  - A briefing with Spencer Reeder of Cascadia on CIMPACT-DST™, a decision support tool that has been applied in Seattle, Washington, and which Cascadia is currently using to support adaptation planning in Huế, Vietnam. The outcome of the meeting was an understanding of the CIMPACT-DST tool, how it is being tailored to Huế, and opportunities for supporting the tool and applying it in work with pilot cities under CRIS.
  - A meeting with Cynthia Rosenzweig of the Urban Climate Change Research Network (UCCRN) to assess possibilities for collaboration with CRIS. This included a discussion of their network of international researchers, UCCRN's activities to develop a second Assessment Report of climate change and cities, and plans to establish regional research centers of action.
  - Participation in START's Cities at Risk Workshop in Durban, South Africa. ICF presented on the CRIS program and established good connections with key organizations working on urban climate change issues, including START, ICLEI, IIED, and city representatives from Durban, Lagos, Nairobi, and Dar es Salaam. The discussions generated interest among cities and partners in participating in CRIS activities, and highlighted potential opportunities for CRIS to leverage existing networks and venues for peer knowledge sharing work. ICF also disseminated the USAID's infrastructure fact sheets and the CRIS summary overview (draft) at the conference.
  - A meeting with Alice Balbo, Senior Project Officer at ICLEI. ICF met with Alice and her colleague, Bryan Holland, head of ICLEI's US Climate Adaptation Program, to discuss opportunities for participation at ICLEI's Resilient Cities 2013 and 2014 Forums and potential future collaboration with ICLEI. For example, some cities active in ICLEI activities may be appropriate to engage in CRIS as "advisor" cities.

In the coming quarter, ICF will undertake the following activities:

- ICF will develop a communications strategy for CRIS, in line with the broader CCRD communications plan. The plan will outline CRIS' key communications priorities, providing a framework for all communications activities. Once the communications plan is finalized, ICF will start to implement the actions it outlines.
- ICF will build on existing CRIS communication materials to develop products for communicating CRIS to key audiences, such as practitioners involved in climate resilient infrastructure work and USAID Missions. This will include translating the tri-fold brochure into Spanish for outreach to

pilot city candidates in Latin America and the Caribbean, developing a template for all CRIS Word documents, and developing a two-page fact sheet on CRIS.

- ICF will also continue to establish the peer learning network. This will involve further networking and outreach to identify and develop city clusters to facilitate peer learning, and the identification of conferences and workshops that could serve as venues for CRIS information sharing, capacity development, and training opportunities.
- ICF will finalize the white paper on pre-planning for post-disaster reconstruction and submit it to a peer-reviewed journal.
- ICF will attend the 2013 ICLEI Resilient Cities Congress to present a poster on CRIS, promote participation in CRIS activities, and strengthen relationships with global networks. Given that CRIS was not selected to conduct a workshop at the Congress, ICF will work to identify an appropriate alternative forum for targeted training, and refine the focus and content of this workshop based on the needs of pilot cities and other CRIS participants. This training will be targeted for roll-out within the next two quarters. Topics may include planning for post-disaster development, rapid diagnostics for vulnerability assessment, fast-track implementation of adaptation options, private sector engagement, or sharing lessons-learned from city-level or sector-specific adaptation approaches.

# ANNEX I. CCRD PERFORMANCE INDICATORS AND ACHIEVEMENTS

During the second quarter of FY 2013, implementation activities supported ten of the 11 performance indicators specified in the CCRD Performance Management Plan. Below is a summary of CCRD performance indicator achievements, followed by a summary table.

**Indicator #1: Number of people with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance (mandatory for Adaptation funding)**

No performance results during this quarter.

**Indicator #2: Number of people receiving training in climate change supported by USG assistance (Person-hours of training completed in climate change supported by USG assistance)**

Support for indicator #2 resulted from 10 workshops/trainings:

- (1) Four one-day Village Development Community Workshops (Manthali, Chisapani, Himganga, and) Khaniypani) in Ramechap, Nepal conducted by the Resources Himalaya Foundation (80 people, 63 men, 17 women, 640 hours of training, 504 hours of training for men, 136 hours of training for women).
  - a. One-day Village Development Community Workshop of Manthali
  - b. One-day Village Development Community Workshop of Chisapani
  - c. One-day Village Development Community Workshop of Himganga
  - d. One-day Village Development Community Workshop of Khaniypani
- (2) Five-week *Strategies and Technologies for Agricultural Adaptation Versus Variability and Climate Change* training conducted by Zamorano (15 people, 13 men, 2 women, 1800 hours of training, 1560 hours of training for men, 240 hours of training for women).
- (3) Two two-day workshops hosted by the Private Institute for Climate Change Research:
  - a. *Towards the Production of Maize and Bean Crops Session for professionals* (25 people, 19 men, 6 women, 400 hours of training, 304 hours of training for men, 96 hours of training for women).
  - b. *Towards the Production of Maize and Bean Crops Session for farmers* (26 people, 17 men, 9 women, 312 hours of training, 204 hours of training for men, 108 hours of training for women).

- (4) Two-day *Tanzania Coastal Climate Change National Adaptation Planning Workshop* in Bagamoyo, Tanzania (42 people, 25 men, 17 women, 630 hours of training, 375 hours of training for men, 255 hours of training for women).
- (5) Four one-day workshops to support the USAID Integration Pilot *Improving Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security* (92 people, 69 men, 23 women, 736 hours of training, 552 hours of training for men, 184 hours of training for women).
  - a. One-day stakeholder meeting with government and private sector groups in Astana
  - b. Three one-day regional stakeholder meetings in the towns of Kostanay, Shortandy, and Petropavlovsk

**Indicator #3: Number of laws, policies, strategies, plans, agreements, or regulations addressing climate change officially proposed, adopted, or implemented as a result of USG assistance**

- (1) The HMGWP, through an MOU signed between TMI Ministry of Environment of Peru, is cooperating with the Ministry of Environment of Peru/Inter-American Development Bank project to strengthen Peru's regional capacities to adapt to climate change in the development and implementation of the Quilcay (Palcacocha) Valley and Huaraz Local Adaptation Plan as a pilot case for glacier watershed mountains in Peru.
- (2) Agreement between Local Education Management Unit and The Mountain Institute Peru (January 30, 2013)
- (3) Agreement between the educational institution Great Unity School Toribio de Luzuriaga and the Mountain Institute Peru (December 28, 2013)
- (4) Agreement between the educational institution Jorge Basadre Grohman and the Mountain Institute Peru (December 27, 2013)
- (5) MOU between the Ancash Regional Government Department of Natural Resources and Environment Management and The Mountain Institute of Peru (December 20, 2013)
- (6) Act of commitment and cooperation to support the management of the subwatershed Quilcay between The Mountain Institute and local municipalities

**Indicator #4: Amount of investment leveraged in U.S. dollars from private and public sources, for climate change as a result of USG assistance**

CCRD benefitted from the financial contributions of numerous public and private organizations for Adaptation Partnership workshops and follow-on activities. Not all organizations providing leverage have been forthcoming in sharing cost information. In those instances, an estimate of the value of leverage is provided based on CCRD's experience in convening similar events such as international conferences and workshops.

University of Texas at Austin **(\$217,392)**

- Uncompensated salaries for PI McKinney, fellowship supported graduate research assistants Somos, Cuellar, and Rivas and tuition of fellowship supported students Somos, Cuellar, and Rivas, and out-of-state tuition remission for HMGWP supported graduate research assistants Chisolm and Rounce.

Adaptation Partnership **(\$19,272)**

- In early February 2013, the IRI team visited Jamaica to engage key institutions in defining priorities and next steps for our collaboration. IRI staff salaries (\$12,972) and travel costs (\$6,300) for this engagement were covered by NOAA funding.

Grain Institute in Shortandy (\$1,000) and Extension Center in Kostanay (\$1,000)

- In February, the CCRD has been engaged to support the USAID Integration Pilot awarded to UNDP titled “Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security”. For the workshops under this activity the organizations above provided conference halls, equipment, communication support, and staff labor for preparation of the event amounting to \$2000 total in leverage.

**Indicator #5: Number of institutions with improved capacity to address climate change issues as a result of USG assistance**

- (1) Jamaica MET, new capacities in data handling from visit and collaborative exchange between IRI’s Chief Climate Scientist, Simon Mason (1 institution).
- (2) Four one-day Village Development Community Workshops (Manthali, Chisapani, Himganga, and) Khaniypani) in Ramechap, Nepal conducted by the Resources Himalaya Foundation (42 institutions).
  - a. One-day Village Development Community Workshop of Manthali
  - b. One-day Village Development Community Workshop of Chisapani
  - c. One-day Village Development Community Workshop of Himganga
  - d. One-day Village Development Community Workshop of Khaniypani
- (3) Five-week *Strategies and Technologies for Agricultural Adaptation Versus Variability and Climate Change* training conducted by Zamorano (16 institutions).
- (4) Two two-day workshops hosted by the Private Institute for Climate Change Research:
  - a. *Towards the Production of Maize and Bean Crops Session for professionals* (12 institutions).
  - b. *Towards the Production of Maize and Bean Crops Session for farmers* (11 institutions).
- (5) Two-day *Tanzania Coastal Climate Change National Adaptation Planning Workshop* in Bagamoyo, Tanzania (28 institutions).
- (6) Four one-day workshops to support the USAID Integration Pilot *Improving Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security* (50 institutions)
  - a. One-day stakeholder meeting with government and private sector groups in Astana
  - b. Three one-day regional stakeholder meetings in the towns of Kostanay, Shortandy, and Petropavlovsk

**Indicator #6: Number of days of USG funded technical assistance in climate change provided to counterparts or stakeholders**

- (1) Two-day *Tanzania Coastal Climate Change National Adaptation Planning Workshop* in Bagamoyo, Tanzania with 2 facilitators, Dr. Yoon Kim and Ms. Lyly Njinga (4 days)

- (2) One-day training for facilitators as part of *Improving the Climate Resiliency of Kazakhstan Wheat and Central Asian Food Security* activity with 3 facilitators, Dr. Glen Anderson, Ms. Deborah Tepley, and Ms. Charlotte Mack (3 days)

**Indicator #7: Number of climate adaptation tools, technologies and methodologies developed, tested, and/or adopted as a result of USG assistance**

- (1) Infrastructure Fact Sheets: Nine fact sheets plus overview were formatted into booklet form to be distributed to CCRD partners, stakeholders, and other groups for collaboration and peer learning.

**Indicator #8: Number of climate vulnerability assessments conducted**

- (1) An Assessment of Water Security, Development, and Climate Change in Iloilo, Philippines and the Tigum-Aganan Watershed.

**Indicator #9: Number of people registering to participate in adaptation-related communities of practice**

Two of the communities of practice established with support from CCRD – The High Mountain Glacial Watershed Program and Climate Services Partnership registered 27 new members during this quarter.

CSP established 21 new contacts regarding current programs this quarter. Please find names below.

Nell Codner [nell.codner@noaa.gov](mailto:nell.codner@noaa.gov)

James Shambaugh [james.shambaugh@noaa.gov](mailto:james.shambaugh@noaa.gov)

Elizabeth C McNie [emcnie@purdue.edu](mailto:emcnie@purdue.edu)

Lisa Dilling [lisa.dilling@Colorado.EDU](mailto:lisa.dilling@Colorado.EDU)

Carla Roncoli [carla.roncoli@emory.edu](mailto:carla.roncoli@emory.edu)

Daniel Sarewitz [Daniel.Sarewitz@asu.edu](mailto:Daniel.Sarewitz@asu.edu)

Roger Street [roger.street@ukcip.org.uk](mailto:roger.street@ukcip.org.uk)

Roger Pielke [pielke@colorado.edu](mailto:pielke@colorado.edu)

Maria Manex [Maria.Manez@hzg.de](mailto:Maria.Manez@hzg.de)

Laura Fontaine [laura\\_fontaine@wvi.org](mailto:laura_fontaine@wvi.org)

Eva Banos de Guisasola [eva.banosdeguisasola@cmcc.it](mailto:eva.banosdeguisasola@cmcc.it)

Hans Olav Hygen [hans.olav.hygen@met.no](mailto:hans.olav.hygen@met.no)

Eleonora Cogo [eleonora.cogo@cmcc.it](mailto:eleonora.cogo@cmcc.it)

Geoff Barnard [geoff.barnard@cdkn.org](mailto:geoff.barnard@cdkn.org)

Ana Prados [aprados1@gmail.com](mailto:aprados1@gmail.com)

Scott Power [S.Power@bom.gov.au](mailto:S.Power@bom.gov.au)

Janita Pahalad [J.Pahalad@bom.gov.au](mailto:J.Pahalad@bom.gov.au)

Amir Delju [adelju@wmo.int](mailto:adelju@wmo.int)

Patrick Parrish [pparrish@wmo.int](mailto:pparrish@wmo.int)

Jeffrey Wilson [jwilson@wmo.int](mailto:jwilson@wmo.int)

Cecilia Tamara Avellan [cavellan@wmo.int](mailto:cavellan@wmo.int)

The HMGWP established six new contacts regarding current programs this quarter. Please find names below.

Vijay Singh [vijaya.singh@undp.org](mailto:vijaya.singh@undp.org)

Jeremy Boley [jboley@usaid.gov](mailto:jboley@usaid.gov)

Joseph Ryan [joryan@usaid.gov](mailto:joryan@usaid.gov)

Zorida Sanchez [Zorida.Sanchez@avina.net](mailto:Zorida.Sanchez@avina.net)

Arnaldo Tacsí [Atacsi4@gmail.com](mailto:Atacsi4@gmail.com)

Blake Weissling [blake.weissling@utsa.edu](mailto:blake.weissling@utsa.edu)

#### **Indicator #10: Number of people logging on to/accessing the adaptation-related websites supported with USG assistance**

CCRD monitored visits to the Adaptation Partnership website, including the three communities of practice.

1. Adaptation partnership: **1425 unique visitors**
2. HMGWP CoP: **119 unique visitors**
3. CSP CoP: **1,007 unique visitors**
4. Central America Climate Resilient Agriculture: **35 unique visitors**

#### **Indicator #11: Number of adaptation financing proposals benefitting from USG assistance**

- (1) UNDP Nepal, Community-Based Flood and Glacial Lake Outburst Risk-Reduction Project, Khumbu, Nepal (**Estimated \$7 million**)
  - a. There has been an explicit request for The Mountain Institute and University of Texas, Austin to participate/backstop the (1) risk reduction, (2) monitoring, (2) disaster knowledge dissemination and training, and (4) community based early warning system objectives, and to take the lead in development of the Khumbu LAPA (Local [climate change] Adaptation Plan of Action).
- (2) Ministry of Environment of Peru/Inter-American Development Bank (**\$200,000**)
  - a. The IDB will invest up to \$200,000 in 2013-2014 at Quillcay valley in implementation of the LAPA and capacity building activities. These funds are to be invested in the process to speed up public investment (e.g. feasibility studies, training municipalities in the design of public investment for climate change adaptation projects). Accessing public funds may take two years but the investments will be of significant scale (i.e., several individual projects with a value of US \$2-4 million/project).
- (3) Peruvian Government (**\$4 million**)



- a. Climate change adaptation funding lined up for climate change resilient development from the Peruvian Government to the Three Rios Commonwealth of Municipalities.

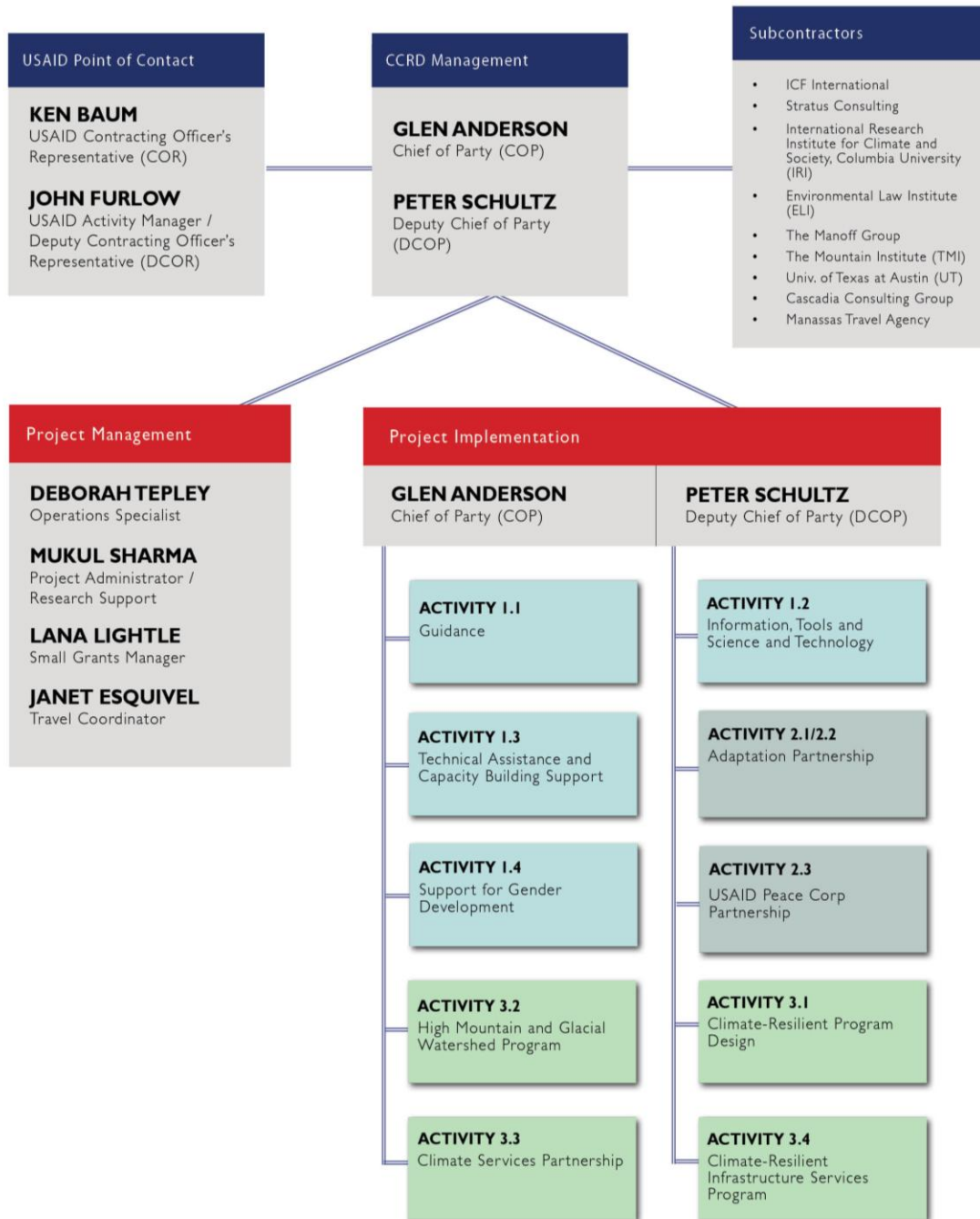
### CCRD Performance Indicators and Achievements

#	Indicator	Unit	FY 2012 Actuals	FY 2013 Targets	Achievement – FY 2013				Remarks	CCRD Cumulative FY 2012 – FY 2013
					QTR 1	QTR 2	QTR 3	QTR 4		
1	Number of people with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance (mandatory for Adaptation funding) <b>MEN</b>	number	48	610						48
	Number of people with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance (mandatory for Adaptation funding) <b>WOMEN</b>	number	9	165						9
2	Number of people receiving training in climate change supported by USG assistance (Person-hours of training completed in climate change supported by USG assistance) <b>MEN</b>	number/ hours	376/ 7,913	1397/ 26,040	93/ 2,142	206/ 3,499			In FY13Q2 CCRD supported 10 separate workshops/trainings in Nepal, Honduras, Guatemala, Tanzania, and Kazakhstan resulting in 280 total people training and 4,518 of training. For more information on the workshops please refer to the indicator explanations above	675 / 13,554
	Number of people receiving training in climate change supported by USG assistance (Person-hours of training completed in climate change supported by USG assistance) <b>WOMEN</b>	number/ hours	148/ 2,736	619/ 11,656	43/ 982	74/ 1019				265 / 4,737
3	Number of laws, policies, strategies, plans, agreements, or regulations addressing climate change officially proposed, adopted, or implemented as a result of USG assistance	number		15		6			The HMGWP established two MOU's, three agreements, and one act of commitment with various governmental and educational organizations in Peru	6

#	Indicator	Unit	FY 2012 Actuals	FY 2013 Targets	Achievement – FY 2013				Remarks	CCRD Cumulative FY 2012 – FY 2013
					QTR 1	QTR 2	QTR 3	QTR 4		
4	Amount of investment leveraged in U.S. dollars from private and public sources, for climate change as a result of USG assistance	dollars	\$440,000	\$600,000	\$131,125	\$238,664			CCRD benefitted from financial contributions from the University of Texas Austin, NOAA, Grain institute in Shortand, and Extension Center in Kostanay	\$809,798
5	Number of institutions with improved capacity to address climate change issues as a result of USG assistance	number	272	75	79	160			Please see Indicator #2	511
6	Number of days of USG-funded technical assistance in climate change provided to counterparts or stakeholders	days	171	390	5	7			Technical assistance provided through the Tanzania Coastal Climate Change NAP Workshop and facilitator training in Kazakhstan pilot activity	183
7	Number of climate adaptation tools, technologies and methodologies developed, tested, and/or adopted as a result of USG assistance	number	6			1			Infrastructure Fact Sheets (nine total plus overview)	6
8	Number of climate vulnerability assessments conducted	number	5			1			An Assessment of Water Security, Development and Climate Change in Ilollo, Philippines and Tigum-Aganan Watershed	6
9	Number of people registering to participate in adaptation-related communities of practice	number	80		9	27			27 CSP and six HMGWP new members	116
10	Number of people logging on to/accessing the adaptation-related websites supported with USG assistance	number	7,687		2,046	2,586				12,319
11	Number of adaptation financing	number				3			Adaptation financing proposals	3

#	Indicator	Unit	FY 2012 Actuals	FY 2013 Targets	Achievement – FY 2013				Remarks	CCRD Cumulative FY 2012 – FY 2013
					QTR 1	QTR 2	QTR 3	QTR 4		
	proposals benefitting from USG assistance								from UNDP Nepal, Ministry of Environment Peru with IDB, and Peruvian Government	

# ANNEX II. ORG CHART



## PROJECT MANAGEMENT

GLEN ANDERSON

WORK PLAN	G. ANDERSON / KEN BAUM
PMP	G. ANDERSON / K. BAUM
STRATEGIC PLANNING / SAC	G. ANDERSON / JOHN FURLOW
REPORTING	DEBORAH TEPLY / K. BAUM
COMMUNICATIONS, OUTREACH, AND COMMUNITIES OF PRACTICE (CoPs)	ROSAMUND MISCHÉ JOHN / JENNY FRANKEL-REED
POC FOR SUBCONTRACTORS/CONSULTANTS	D. TEPLY / K. BAUM
SMALL GRANTS	LANA LIGHTLE / K. BAUM

## PROJECT IMPLEMENTATION

GLEN ANDERSON / PETER SCHULTZ

<b>ACTIVITY 1.1: GUIDANCE</b>	G. ANDERSON / J. FRANKEL-REED	
<b>1.1: GUIDANCE, BRIEFS, AND ANNEXES</b>	YOON KIM / J. FRANKEL-REED	
REVISE V&A MANUAL	Y. KIM / J. FRANKEL-REED	
WATER ANNEX	BOB RAUCHER / J. FRANKEL-REED	
COASTAL AND MARINE ANNEX	Y. KIM / JONATHAN COOK	
DIFFERENTIATED VULNERABILITIES ANNEX	R. MISCHÉ JOHN / ANDRE MERSHON	
GOVERNANCE ANNEX	JESSICA TROELL / J. COOK	
DEVELOP LESSONS LEARNED ON MAINSTREAMING CLIMATE ADAPTATION	MIKE SAVONIS / J. FRANKEL-REED	
INFRASTRUCTURE LESSONS LEARNED PILOT	M. SAVONIS / K. BAUM	
YEAR 2: KM / ROLLOUT OF NEW GUIDANCE	A. MERSHON	
YEAR 2: V&A 201 TRAINING	A. MERSHON	
YEAR 2: DRR CLIMATE GUIDANCE BRIEF	NORA FERM	
YEAR 2: LEDS GUIDANCE BRIEF	ASHLEY ALLEN	
YEAR 2: SECURITY/CONFLICT GUIDANCE BRIEF	J. FURLOW	
YEAR 2: URBAN/INFRASTRUCTURE GUIDANCE BRIEF	K. BAUM / N. FERM	
YEAR 2: RISK MANAGEMENT (INCLUDING DRR) GUIDANCE BRIEF	N. FERM	
YEAR 2: HEALTH GUIDANCE BRIEF	J. FRANKEL-REED	
YEAR 2: PROJECT DESIGN & MANAGEMENT (INCLUDING FINANCING AND M&E) GUIDANCE BRIEF	J. COOK	
<b>ACTIVITY 1.2: INFORMATION, TOOLS AND SCI AND TECH</b>	P. SCHULTZ / J. FRANKEL-REED	
UNDERSTAND USAID BUREAU AND MISSION NEEDS FOR CC ADAPTATION TOOLS	P. SCHULTZ / J. FRANKEL-REED	
MAINTAIN GCC OFFICE HELP DESK	C. MACK / A. MERSHON	
UNDP ALM WEBSITE	R. MISCHÉ JOHN / J. FRANKEL-REED	
<b>ACTIVITY 1.3: TECHNICAL ASSISTANCE AND CAPACITY BUILDING SUPPORT</b>	G. ANDERSON	
PROVIDE CAPACITY BUILDING SUPPORT ON MAINSTREAMING V&A	G. ANDERSON / A. MERSHON	
SUPPORT DEVELOPMENT OF USAID'S FEDERAL AGENCY CLIMATE CHANGE PLAN	JOANNE POTTER / N. FERM	
PROVIDE SUPPORT FOR USAID INTEGRATION PILOT IN KAZAKHSTAN	G. ANDERSON / J. FRANKEL-REED	
<b>ACTIVITY 1.4: SUPPORT FOR GENDER DEVELOPMENT</b>		
TECHNICAL ASSISTANCE TO THE OFFICE OF GENDER EQUALITY AND WOMEN'S EMPOWERMENT	IRI / NATALIE ELWELL & A. MERSHON	
<b>ACTIVITY 2.1/2.2: ADAPTATION PARTNERSHIP</b>	P. SCHULTZ	
<b>2.1: ADAPTATION PARTNERSHIP</b>	R. MISCHÉ JOHN	
CONDUCT ADAPTATION PARTNERSHIP WORKSHOPS	R. MISCHÉ JOHN	
CLIMATE CHANGE AND SECURITY WORKSHOP	R. MISCHÉ JOHN	
<b>2.2: ADAPTATION PARTNERSHIP CoP</b>	R. MISCHÉ JOHN	
FACILITATE ADAPTATION PARTNERSHIP CoP	R. MISCHÉ JOHN	
DEVELOP AP MATERIALS	D. TEPLY / N. FERM	
<b>ACTIVITY 3.1: CLIMATE RESILIENT PROGRAM DESIGN</b>	P. SCHULTZ	
SUPPORT PREPARATION OF NATIONAL ADAPTATION PLANS (NAPS)	Y. KIM	
DEVELOP AND PILOT FAST TRACK IMPLEMENTATION CONCEPT	P. SCHULTZ	
<b>ACTIVITY 3.2: HIGH MOUNTAIN AND GLACIAL WATERSHED PROGRAM</b>	G. ANDERSON	
<b>3.2: HIGH MOUNTAIN AND GLACIAL WATERSHEDS</b>	MEGHAN HARTMAN	
DEVELOP THE GLOBAL HIGH MOUNTAIN GLACIAL LAKE PARTNERSHIP CoP	CoP SECRETARIAT / THE MOUNTAIN INSTITUTE / THE UNIVERSITY OF TEXAS AT AUSTIN	
DESIGN AND CONDUCT THE CLIMBER-SCIENTIST SMALL GRANT COMPETITION	CoP SECRETARIAT - TMI/UT	
ESTABLISH THE CLIMBER-SCIENTIST SMALL GRANTS COMPETITION	TMI/UT	
IMPLEMENT CoP PILOT PROJECTS AND RESEARCH	TMI/UT	
NEPAL RECONNAISSANCE	TMI/UT	
PERU RISK PERCEPTION ASSESSMENT	TMI/UT	
CoP WORKSHOP PLANNING	TMI/UT	
PREPARATION OF MAINSTREAMING PAPER	M. HARTMAN	
<b>ACTIVITY 3.3: CLIMATE SERVICES PARTNERSHIP</b>	G. ANDERSON	
<b>3.3: CLIMATE SERVICES</b>	FERNANDA ZERMOGLIO	
COORDINATE ACTIVITIES OF THE CLIMATE SERVICES PARTNERSHIP	S. ZEBIAK	
COMPILE AND DISSEMINATE CURRENT CLIMATE SERVICES KNOWLEDGE	INTERNATIONAL RESEARCH INSTITUTE FOR CLIMATE AND SOCIETY STAFF	
CONDUCT CASE STUDIES AND ASSESSMENTS OF CLIMATE SERVICES	IRI STAFF	
ECONOMIC VALUATION OF CLIMATE SERVICES	G. ANDERSON	
CLIMATE INFORMATION GUIDE BOOK	IRI STAFF	
PILOT NATIONAL-LEVEL CLIMATE SERVICES ANALYSIS	S. ZEBIAK/IRI	
DEVELOP CLIMATE SERVICES PRODUCT FOR AGRICULTURAL SECTOR	S. ZEBIAK/IRI	
CLIMATE SERVICES TECHNICAL BACKSTOPPING OF DEVELOPMENT PROGRAM	S. ZEBIAK/IRI	
<b>ACTIVITY 3.4: CLIMATE-RESILIENT INFRASTRUCTURE SERVICES PROGRAM</b>	P. SCHULTZ	
IDENTIFICATION OF PILOT CITIES	J. POTTER	
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